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ABSTRACT

Drawing from existing records, documents, and data files, this report provides a comprehensive assessment of the status of vocational education in California's community colleges. Part I offers an executive summary of the study, including major factors affecting the status of vocational education in community colleges, key findings, recommendations, and a brief statement about the guiding principles for delivering the mission of vocational education. Part II explains the background and purpose of the study and the procedures used. Part III traces the history and chronological development of vocational education at community colleges in California, including a discussion of legislation, national and world events, issues, perceptions, and trends affecting the nature and operation of two-year college vocational programs. Part IV contains a summary of major study findings in six areas of investigation: students in vocational education, vocational programs, program delivery patterns, program planning, program funding, and student outcomes. Finally, part V contains recommendations related to leadership, mission, and philosophy; program planning and coordination; student services and program impacts; vocational program funding; the state program approval process; and the state information system. Appendixes include a list of resource documents reviewed during the study, a socioeconomic profile of vocational education students, various types of enrollment data, and a summary of faculty characteristics related to Vocational Weekly Student Contact Hours. (LAL)

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PATHWAYS TO PROGRESS

A Comprehensive Study of Vocational Education in California Community Colleges

JC 860 493

A Study Conducted
by

CARVELL Education Management Planning, Inc.

For

Chancellor's Office, California Community Colleges
Sacramento, California

MARCH, 1986

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by:

CARVELL Education Management Planning, Inc.
P.O. Box 1027
Carmel Valley, California 93924

For:

Chancellor's Office, California Community Colleges
Sacramento, California

March, 1986

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PREFACE

For the past half decade community colleges in California have contended with difficult times. Dramatic changes in student characteristics, unstable and reduced financial resources, declining enrollments, shifts in decision-making power from the local level to the State, confrontational politics among factions within the community colleges themselves, and other operational problems that beset large urban districts as well as small outlying community colleges have provided a hay day for critics and investigative reporters. As a result, the recognition of the benefits of community colleges may be lost to their publics.

Amid this turbulence, intensive studies have been initiated about the mission of community colleges and various other aspects of their operation and role as part of the higher education system of the State. Although this report is one of many dealing with the complex issues related to community colleges, it differs from the others on several counts. First, it does not address the general problems of community colleges noted above, rather it is focused entirely on a single aspect--vocational education. This report is neither a promotional piece nor a counter argument for the findings and recommendations of other concurrent or recent studies of vocational education in California community colleges.

Second, the body of information compiled during this study is data based rather than anecdotal, i.e., existing records, documents, and data files were used to identify and describe the status of vocational education in six defined areas of investigation. From this information base, a seventh area emerged--the identification of major issues and trends that affect the nature and delivery of vocational education in community colleges in California.

Once the issues were identified, reactions and ideas from a broad range of community college educators were sought to help clarify the relevance of these issues to vocational education. Some of the external factors have an impact on other educational endeavors of community colleges, but only those having a direct relationship to vocational education are included in this report.

Third, the scope of this study called for describing statewide and state level topics related to community college vocational education, not individual districts or their programs.

In the final analysis of the factual information that was compiled, several themes emerged that seem to be of greatest concern to those who provided reactions to the preliminary study findings.

- How to ensure that community college vocational education receives its proportionate share of support, financing, and recognition from state and local decision makers who control the allocation of available resources.
- How to balance serving the needs of a diverse student population and at the same time respond to the changing demands of the employment community.
- How to incorporate necessary job training programs under the auspices of vocational education in response to local needs without loss of the important identity of comprehensive community colleges as a segment of higher education.
- How to ensure the quality of vocational programs and services, given the limitation of available resources.

Maintaining quality was of paramount concern, in light of the changing social and economic conditions under which vocational programs have had to operate during the past half decade. Quality is not merely a factor of what goes into a program, it also depends on the results achieved. Quality is something that can be recognized, but difficult to define. Especially in vocational education, measures of excellence must be found beyond those based solely on academic criteria. Program quality is a matter of attitude as well as ingredients and is not based on subject matter alone but on the extent to which defined outcomes are achieved--student successes in relation to goals.

Because of the data oriented approach taken in this study, several factors are reflected in the findings and recommendations. First, reliable and compatible information was limited on several of the topics addressed by the study, because of the manner in which data were collected, assembled and stored by the State. Second, part of the information on enrollments, programs and student outcomes was considered inaccurate, incomplete or untimely by state and local sources, yet the same information was used for financial and accountability purposes.

Third, much of the information about vocational education gathered by the state was compliance related; therefore, a large segment of activity not supported by federal vocational funds was not **reflected** in the state's information base.

Fourth, much of the available information housed by the state was compartmentalized in different operating units of the Chancellor's Office, California Community Colleges, (COCCC) and difficult to assemble or cross reference. None of these observations should be construed as a lack of cooperation from the COCCC staff. Many of the staff recognized the problems and assisted in finding and providing requested information, and despite the limitations noted here, the study did compile substantial information. However, this does not ensure continued amalgamation and analysis of data by the COCCC.

Finally, in times of crisis, there seems to be a tendency to over emphasize problems and neglect the benefits of an enterprise. It is hoped that this study was not unduly guilty of this perceptual flaw. The intended purpose of this report is to present objectively the current status of vocational education in community colleges so that efforts toward further progress can be continued.

Organization of the Report

This report is divided into five parts plus appendices. Part I is an executive summary which is intended to stand alone. It contains a description of the study, major factors that affect the status of vocational education in community colleges, 20 key findings, and major and supplementary recommendations. The final section of Part I concludes with a brief statement about the guiding principles for deliberating the mission of vocational education in community colleges and a conceptual model for understanding the relationship of vocational education to the other major instructional functions in community colleges. Although some 150 documents are referred to in the body of the report, such footnotes do not appear in the executive summary.

Part II is an explanation of the purpose and procedures used in the study.

Part III presents the historical background and chronological development of community colleges in California. This part provides an identification of the issues and trends that affect the nature and operation of vocational programs in community colleges in the State.

Part IV contains a summary of the major study findings in relation to each of the areas of investigation included in the scope of the study.

Part V contains eight major recommendations and related supplementary recommendations. The rationale and supporting findings used to clarify and amplify each recommendation are presented. Appendix materials follow Part V.

Study Team

The study was directed by Fred Carvell. Joan B. Carvell participated in all phases of the project and conducted the analysis of program and student enrollment data. Dr. Don B. Medley, Chairperson, School of Business Administration Computer Information Systems, California State Polytechnic University, Pomona, was responsible for coordinating the computer programming and re-runs of course activity and VEDS data tapes obtained from the COCCC. Dr. Ben K. Gold, consultant, assisted by providing information about special needs populations and the Student Accountability Model which were used to describe students served by community college vocational education programs in the State. Walter Brooks, from Shasta College, provided liaison with the student follow-up system being developed and pilot tested for the COCCC.

Acknowledgments

The study team conferred with many individuals and groups throughout the study. All were constructive and helpful in contributing information to describe the state of the art of vocational education in California's 106 community colleges. Their contribution is appreciated.

A special note of thanks goes to the study advisory committee who contributed to the process of identifying sources of data and rendering the massive amount of information into a cogent set of findings and recommendations. The names of the working committee members appear in the front of the report.

The study team conferred with over 45 organizations and groups during the study and enjoyed particularly close working relationships with several of them. Our appreciation goes to the California Community College Administrators of Occupational Education which allowed us to administer a survey to its membership, the California Community College Occupational Education Coalition which kept us posted on major issues and trends during the project year, and the COCCC State Occupational Education Advisory Committee for Evaluation and Research which identified research studies that were pertinent to this effort.

Finally, our appreciation goes to all the units of the COCCC that cooperated by providing information and computer data used in the analysis conducted by the study team.

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GLOSSARY OF ACRONYMS USED IN REPORT

ADA	Average Daily Attendance
ASCH	Annual Student Contact Hours
BOG	Board of Governors
CC	Community College(s)
CCC	California Community Colleges
CCCAOE	California Community Colleges Administrators of Occupational Education
CETA	Comprehensive Employment Training Act
COCCC	Chancellor's Office, California Community Colleges
COICC	California Occupational Information Coordinating Committee
COPES	California Occupational Program Evaluation System
CSU	California State University
EBT	Employer Based Training
EDD	Employment Development Department
EOPS	Equal Opportunity Programs and Services
ETP	Employment Training Panel
JT	Job Training
JTPA	Job Training Partnership Act
LEP	Limited English Proficient
LES	Limited English Speaking
MDTA	Manpower Development Training Act
OJT	On-the-Job Training
PIC	Private Industry Council(s)
SAM	Student Accountability Model
SBE	State Board of Education
SDA	Service Delivery Area
SDE	State Department of Education
TOP	Taxonomy of Programs
UC	University of California
USDE	United States Department of Education
VE	Vocational Education
VEA	Vocational Education Act
VEDS	Vocational Education Data System
WSCH	Weekly Student Contact Hours

Part I

EXECUTIVE SUMMARY: COMPREHENSIVE STUDY OF VOCATIONAL EDUCATION IN CALIFORNIA COMMUNITY COLLEGES

This executive summary contains the highlights of a year-long comprehensive study of vocational education in California community colleges (CCC). It summarizes the critical factors that affect the current and projected nature and context of community college vocational education, presents the key findings related to six specified areas of investigation within the scope of the study, and outlines the major and supplementary recommendations on which there was consensus by a study advisory committee. Details and documentation of the findings, rationale and historical background of the descriptive information are contained in the four additional parts that comprise the body of the final report.

Introduction

For 75 years community colleges in California have provided access for youths and adults who might not otherwise have had an opportunity to gain a postsecondary education. An increased number of those students have sought courses that are employment related either to gain entry to the workforce or to improve their career options even though they were already employed. Of course, some occupational students pursue higher education in four-year colleges and universities or other advanced training institutions, but little is known about the characteristics or magnitude of this group beyond a prototype description given in a state longitudinal study completed in 1981.

By any given measure, California community colleges (CCC) are the largest public system of postsecondary vocational education in the United States. Statistics for 1983-84 indicate that CCC:

1. Generated over 138.0 million annual hours of vocational instruction in 59.5 thousand courses, most of which were offered for credit and could be transferred to the California State University system.

2. Had 909.8 thousand students enroll in one or more vocational courses in the 16 major program disciplines; that is, three out of four students in the total system enrolled in a vocational course.

3. Had 2/3 of all vocational students enrolled in courses above the pre-vocational or beginning level.

4. Offered 314 different vocational programs, many of which were offered on more than one of the 106 colleges and 40 separate satellite centers, to prepare students for entry employment or occupational upgrading and career improvement.

5. Expended over $586.2 million for vocational education; $23.5 million of which was federal vocational education funds--about 4% of the total.

6. Awarded 19.6 thousand AA degrees in vocational areas; this represented 41% of all AA degrees awarded by CCCs.

7. Provided facilities, instructional staff and other instructional resources for delivering job training sponsored by major federal and state employment training programs intended to alleviate the training needs of a wide array of disadvantaged, unemployed, underemployed and special needs populations. In addition, CCC provided contractual education to industry.

Purpose of This Study

The purpose of this study was to investigate available data files and information that described the status of vocational education programs and services provided by California community colleges.

This study was directed toward describing the nature and scope of vocational education in California community colleges; however, this comprehensive effort did not include some aspects of community college vocational programs that were being investigated by other agencies or in other studies that were being conducted simultaneously in 1985. The results of such studies that were available at the time this report was prepared were considered in reaching conclusions and making recommendations.

Study Procedures

Heavy emphasis was placed on review of documentation and data files collected and housed by the Chancellor's Office, California Community Colleges (COCCC). The study team worked with an advisory committee and conferred with them both individually and as a group throughout the 12 month study. Major activities included:

- Review of over 150 reports, documents, and data files which are referred to appropriately in the text of the final report.

- A written survey of current practices and trends in community college vocational programs in which 52 of 70 districts responded representing 74% of the 106 colleges and 87% of the ADA generated in the State by vocational education programs.

- Contacts were made with 45 state agencies, professional organizations, and private companies. These contacts included administrators, faculty members, and staff members in such organizations.

- State and local plans for vocational education were reviewed to determine the nature and extent of vocational programs and services in community colleges in the state.

- An intensive effort was made to identify and utilize all relevant computer tapes containing data related to vocational enrollments and course activity by Taxonomy of Program (TOP) for 1983-84.

Information generated by the foregoing activities was compiled and analyzed in relation to seven factors which defined the scope of this study: 1) Student Data, 2) Program Data, 3) Program Delivery Patterns, 4) Program Planning, 5) Program Funding, 6) Student Outcomes, and 7) Critical Issues and Themes. The final topic was derived from an analysis of the previous six factors.

VOCATIONAL EDUCATION MISSION OF COMMUNITY COLLEGES

One of the strong interests among local and state community college educators during this study was the work of the Master Plan Commission in reviewing the overall mission of community colleges in California. This included a look at educational functions, finance, and governance issues. Thus, it was logical that the Commission study should look at some of the issues related to the role of vocational education in the mission of community colleges.

It was important and necessary that the Master Plan Commission review the overall mission of community colleges, but it is also critical that any redefinition of the community college mission be something more than a restatement without reaffirmation and commitment to all aspects of the community college mission by those who control the allocation of resources for community colleges. This is particularly true because the largest share of community college financing has shifted dramatically from local to state support since 1979.

A review of the historical development of community colleges shows that the original "junior college" mission of providing the first two years of college for transfer students has broadened to include other social and educational imperatives. Some community college educators assert that academic transfer programs are the most important component of the community college educational mission. It should be noted here that neither the purpose nor findings of this study are intended to contest the importance of the transfer function of community colleges, but the facts indicate that vocational programs by virtue of student demand, number of courses and instructional hours generated, are indispensable for many community colleges in the State.

The transfer function is one of the elements that distinguishes comprehensive community colleges from the narrower mission of technical institutes or the limited objectives of some adult education vocational programs. Many community college vocational students take general education transfer courses and many declared transfer students engage in vocational course work as part of their community college experience. The interdependency between the two areas of instruction is stronger than many people may recognize. Thus, while the transfer program may be the cornerstone of community college education, vocational programs are the pillars which support many community colleges in the State because of their importance to students and the local business community.

OBSERVATIONS ABOUT COMMUNITY COLLEGE VOCATIONAL PROGRAMS

Among the notable observations that can be made from the findings of this study are:

- Community college vocational programs are a major factor in meeting the needs of youths and adults who wish to prepare for employment or upgrade their occupational skills. However, many of these students take individual courses rather than prescribed occupational programs. Little current information is available to describe the portion of vocational students who transfer to higher education institutions.

- Vocational programs in community colleges have succeeded in providing access to students in all 58 counties and, although there is room for improvement, this has been achieved with relative equity for students regardless of ethnic origin, sex or economic status.

- Generally, although there are some disfunctions, the largest vocational programs in the state are geared to the largest employment opportunities in business and industry, namely in office, data processing and computer occupations, in industrial and technical fields, and public services.

- Community colleges, as locally oriented institutions, have done a commendable job of meeting locally defined needs by responding as a deliverer of a wide variety of federal, state, and privately supported job training programs. However, in doing so, the issues of "college level", definition of vocational students, and control of quality in such programs have come to light.

- State and federal legislation that provides a legal framework for many vocational and job training programs offered in community colleges is often complicated, contradictory in nature, and cumbersome to administer at state and local levels because of differences in program scope and operational restrictions.

Before presenting the study recommendations, two elements that contribute to a better understanding of them are outlined. These are 1) major factors that affect the nature and status of vocational education in community colleges and 2) highlights of key findings from the review of available information sources describing vocational education in community colleges.

MAJOR FACTORS AFFECTING THE CURRENT STATUS OF VOCATIONAL EDUCATION IN CALIFORNIA COMMUNITY COLLEGES

Aside from the statistics, computer data, and written documents that were used to compile a body of factual information to support the study recommendations, seven major factors were found to affect the context within which vocational education (VE) programs are offered in California community colleges (CCC). These factors are beyond the direct control of the community colleges. Some of them have implications for more than vocational programs, but they are noted here because they all have a direct impact on the nature, operation, and future of community college vocational education.

● DICHOTOMY OF PERCEPTIONS ABOUT COMMUNITY COLLEGES AS INSTITUTIONS

Perceptions about the role of community colleges as educational institutions differ widely. The dichotomy of perceptions can be placed into opposing categories which consider community colleges as:

- A segment of higher education for carrying out state policies and plans
- Institutions established primarily to meet locally defined needs and priorities.

Available evidence indicates that community colleges, in order to meet the needs of their students, must be facile in serving both functions.

● PROBLEMS OF DIFFERENTIATING BETWEEN VOCATIONAL EDUCATION AND JOB TRAINING, IN PRACTICE, AND COMMUNICATING THE DIFFERENCE TO NECESSARY PUBLICS

Although the Board of Governors (BOG) has adopted policies for vocational education, in practice there is still confusion between vocational education and job training. This has led to:

- Difficulty in defining and reporting data about vocational students
- Lack of understanding about the difference between VE and job training by many faculty, counselors, students, employers, vocational staff and the general public.

● LEGISLATIVE CONTEXT INFLUENCING VOCATIONAL PROGRAMS

Federal and state legislation has clouded the lines between secondary and postsecondary vocational education and has expanded the original purposes of vocational education beyond preparation for employment into social and economic domains. Factors that contribute to the need to reassess the influence of legislation on community college vocational programs are:

- Federal orientation for VE is at the secondary level and excludes VEA funds for use in baccalaureate level programs.

- Context of VEA legislation is based on precepts of the work force and education that were prevalent at the beginning of the twentieth century.

- Current federal VE legislation is focused on access and services to special needs populations, many of whom are below college level in educational preparation or lack necessary motivation.

- Recent job training legislation is directed toward short-term, intensive programs for under- and unemployed populations.

- Many state and federal laws pertaining to employment programs consider CCCs as deliverers of educational and social services that may not be collegiate in nature.

● LACK OF A CLEAR PHILOSOPHICAL OR CONCEPTUAL FRAMEWORK FOR IDENTIFYING THE ROLE OF COMMUNITY COLLEGES IN THE STATE'S ECONOMIC DEVELOPMENT PROGRAM OR HUMAN RESOURCE DEVELOPMENT POLICIES

Neither the state legislature nor the executive branch of state government has defined the role of the State's educational system or community colleges per se in providing a contribution to the economic development or human resource development policies of the State; nor is there any indication of any serious pressure on the State's body politic to do so.

- Federal legislation has been a prime influence on how state vocational education programs are organized, meet standards, and report data on vocational students. As a result, federal guidelines, rather than a coherent state level plan designed to meet state needs, have been used to determine needs and establish priorities for vocational education. Defining roles of myriad deliverers of employment training has been left to competitive rather than cooperative modes of planning -- yet,

  - . California with its $450 billion annual product is the eighth largest economic entity in the world and the most populous State in the US. (References not in main report are noted in this section-136,137.)

  - . California's community colleges are the nation's largest public system for delivering postsecondary vocational education programs -- over one in five community college students in the nation are in California.

  - . California's 106 community colleges provide a mechanism and resource for providing employment preparation in any of the 58 counties in the State. About one of every 17 adults in the state attended a community college in 1984.

● A SHIFT IN THE PURPOSES OF VOCATIONAL EDUCATION ACT FUNDS AND A DECLINE IN BUYING POWER WHILE FUNDING FROM OTHER FEDERAL AND STATE EMPLOYMENT TRAINING PROGRAMS HAVE INCREASED

Federal vocational education funds declined in actual amounts as well as in buying power between 1981 and 1983 during a period in which there was a tight funding squeeze placed on community colleges due to the effects of

Proposition 13. At the same time the purposes of the new act shifted in emphasis.

- Community colleges have been placed in competition to bid for job training partnership act (JTPA), employment training panel (ETP) and other outside funds to help offset the decline in buying power and fewer dollars to improve their programs. This has placed some financially pressed community colleges in the position of seeking offsetting funding from such sources in order to sustain existing vocational programs. In fact, COCCC fiscal data indicate less general fund dollars per hour of instruction were expended by local districts on vocational programs than on other programs.

- There is the serious danger of diminution of vocational programs as educational dollars are reduced because whole vocational programs can be eliminated due to their discrete nature.

- If external funding sources become the dominant factor in underwriting the cost of vocational programs offered by the colleges, the operational and philosophical differences between short-term, intensive job training and the broader aspects of vocational education could result in a schism between state and local priorities in decision-making processes.

● CHANGING DEMOGRAPHIC PATTERNS IN THE STATE AND CHANGING CHARACTERISTICS OF COMMUNITY COLLEGE STUDENTS

California's population reflects a diverse and changing pattern of ethnic characteristics as well as varying growth rates by region in the State. Projections strongly indicate this diversity will continue through the next decade. (146) This cultural and demographic collage requires that the 106 community colleges have to be increasingly flexible to meet diverse student needs and unique local demands.

- California's 26.3 million residents make it the most populous state in the nation and one of the ten fastest growing (11.4% increase in 1985).

- California has the nation's largest foreign born population -- drawn mainly from the Pacific Basin, Asia, Mexico, Central and South America.

- Including the foreign born, California has a combined ethnic minority population of about 33 percent which will reach 45 percent of the state's total population by the year 2000. The largest growth rates will occur among Hispanics and Asians.

- The most rapidly growing segment of the population is the 35 to 54 year old age group, while the traditional college age cohort (18 to 24) will continue to decline until the mid-1990s. Median age in the State is about the same as the average age of current community college students -- 30 years old.

The implication of these projected demographics for community colleges is significant:

- There will be a decrease in traditional college student population until the mid-1990s.

- A large portion of the foreign born and minority students will enter community colleges with English language limitations, in need of remedial education, financial assistance, and assistance in preparing for employment. About 80% of entering CCC students currently need some form of educational remediation.

- The extended life span and aging population will increase the portion of older adults who will seek recurring educational experiences in the community colleges.

- There will be a sustained increase in the number of women students, many as head of household, who will need special support services ranging from career counseling and employment preparation to child care services and financial aid.

- As the general population ages, there will be increased demand for programs to help people make career changes and improvements, retraining, and counseling services.

● SOCIAL, ECONOMIC, AND TECHNOLOGICAL CHANGES AND TRENDS

Vocational education is affected by myriad changes that alter the nature of work, the skills required by workers, the social and human environment within which work occurs, and the overall context of work for individual life styles of people from diverse cultural backgrounds.

The change from a production based economy to an information society with increased life expectancy, shifts toward worldwide interdependency, and other social changes that affect family and personal values are traumatic and the subject of exhaustive sociological and psychological inquiry. Study of the impact of social change on general education patterns and individual needs of youths and older adults was beyond the scope of this study. However, key events and trends cannot be ignored in terms of their impact on CCC vocational education programs. The following list is not exhaustive, but provides highlights of some of the elements affecting present and future vocational programs.

- California's strong economy and labor force will continue to grow, but so will the number of unemployed:

  . The average person will change jobs about five times during a working life.

Technological changes in the workplace will displace employees or change job skill requirements at a rate that may require retraining and career improvement become larger functions for CCCs than preparing new workers for the labor market.

- High technology will change the nature of educational and skill requirements for those entering as well as those already in the labor force.

- . Although California provides about 1/4 of the nation's high tech jobs and one dollar in every nine dollars of the State's product is generated in aerospace and related defense industries, growth in high tech employment occupations will not keep pace with jobs in service oriented fields that require lower job skills. (136)

- . The most valued areas of education and training may be those that improve abstract and symbolic thinking, understanding interrelated systems and processes, solving technical nonrepetitive problems, and working with diverse people to achieve defined job outcomes.

- The literature and history of work in the US indicate that there has been and will continue to be a shift from the linear progression from school to work to lifelong learning in which education and training will be interspersed with work and changing career status.

- The demands of the labor market, changing occupational requirements, and shifting economic patterns will place increasing tension on the dilemma of providing general versus specific occupational preparation and the need to teach basic competencies as part of the training process.

☐ "It is absolutely imperative that high schools and ... community colleges, become aggressive in examining, developing, and sustaining quality educational programs to serve that great host of Americans who will keep this country working."

• from The Neglected Majority by Dale Parnell

HIGHLIGHTS OF THE STUDY FINDINGS

Twenty of the key study findings are summarized below. Details can be found in Part IV of the final report, appendix materials, and working papers delivered to the Vocational Education Unit of the COCCC. Additional findings are incorporated in the rationale and supporting statements that accompany each of the study recommendations presented in Part V of this report.

Students in Vocational Programs

1. Students served by CCC vocational programs are a diverse and bimodal population. (See Figure 1-A)

2. There has been a dramatic shift in student demand for vocational programs. (See Figure 1-B)

3. Community college vocational programs have generally provided access for women and minority groups and other special populations.

4. CCC administrators of vocational education anticipate that enrollment in vocational programs will continue to increase during the next half decade.

Vocational Programs

5. Differentiating between vocational education and job training in practice and communicating the difference to necessary publics is a continuing problem.

6. A major portion of CCC vocational education enrollments and student contact hours are concentrated in three major program areas--business, computer and technical occupations. (See Figure 1-C)

7. There is a disparity in COCCC records between the number of state approved programs (TOPs) and the actual number being offered by local districts.

8. CCCs are a major mechanism for providing a wide range of locally needed employment training programs.

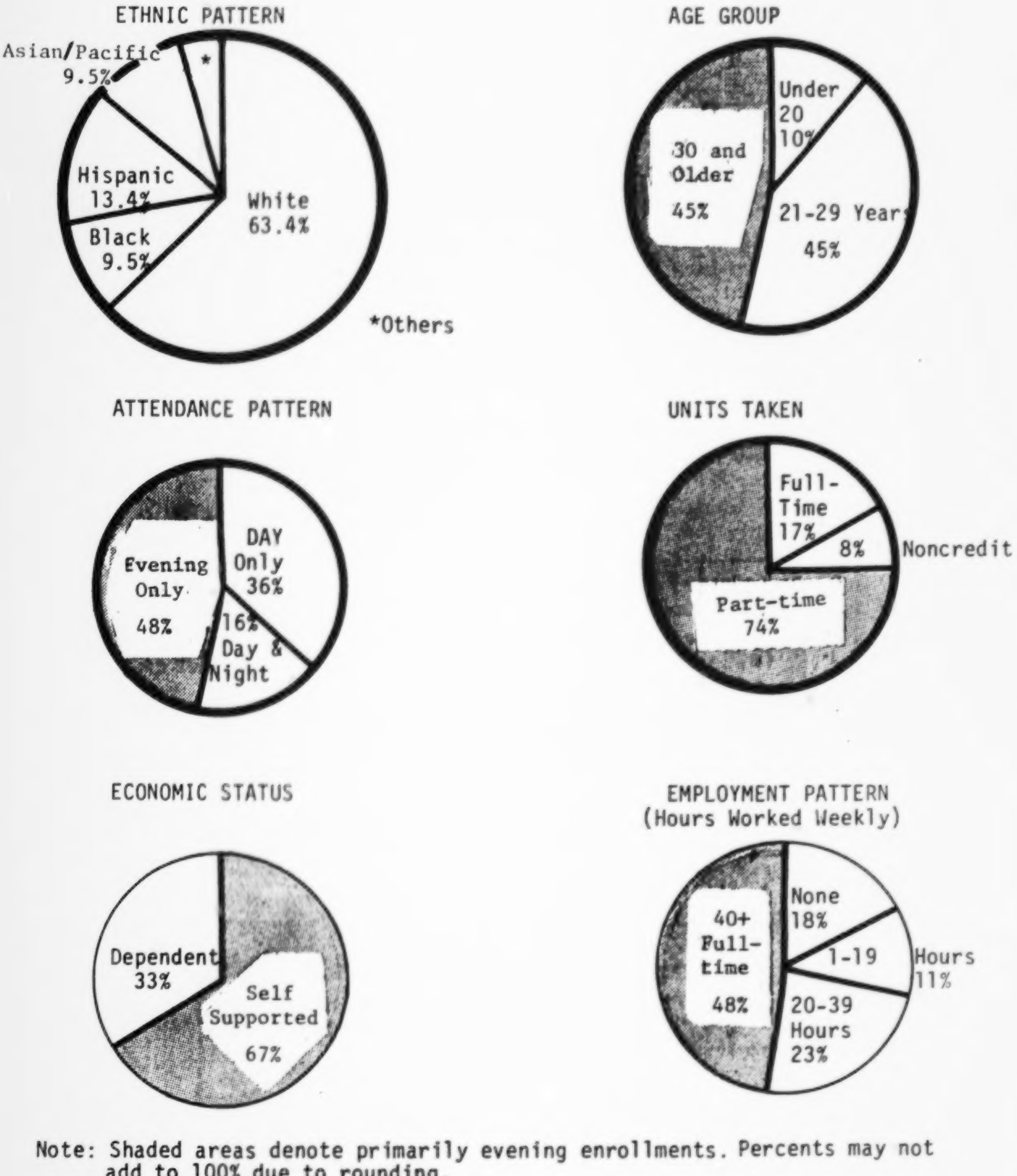
Program Delivery Patterns

9. Vocational education in CCCs is delivered within the context of comprehensive colleges.

10. CCC occupational administrators responsible for leadership at the local level anticipate changes in the mode of delivering vocational programs during the next five years--more contractual education, more industry input in curriculum and greater use of computer aided instruction.

Figure 1-A

SELECTED CHARACTERISTICS OF STUDENTS WITH VOCATIONAL GOALS IN CALIFORNIA COMMUNITY COLLEGES, Spring 1984

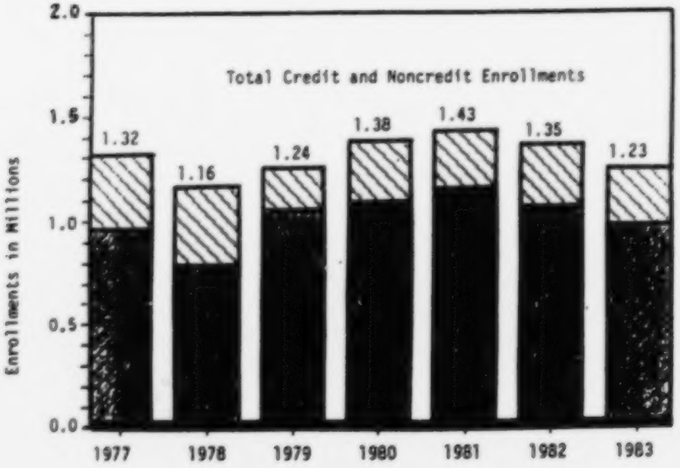


Note: Shaded areas denote primarily evening enrollments. Percents may not add to 100% due to rounding.

Source: Compiled from computer tapes supplied by Analytical Studies Unit, COCCC, May 1985.

Figure 1-B

PROPORTION OF TOTAL COMMUNITY COLLEGE ENROLLMENTS TAKING ONE OR MORE VOCATIONAL COURSES, 1977 TO 1983



■ Percent of total students who enroll in one or more vocational course in community college*

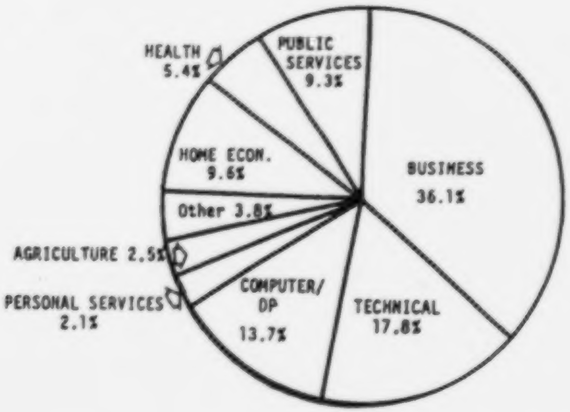
1977: 67.4%
1978: 74.3%
1979: 83.9%
1980: 78.6%
1981: 80.2%
1982: 78.3%
1983: 79.0%

* Does not include enrollments in job training programs not generating ADA.

Sources: Total Community College Enrollments, Stats and Facts, COCCC, 1984.
Unduplicated Vocational Education Enrollments, VEDS reports, years cited.

Figure 1-C

PERCENT OF ENROLLMENTS BY MAJOR VOCATIONAL PROGRAM, 1983-84



COMPARISON OF TOTAL ANNUAL ENROLLMENT AND STUDENT CONTACT HOURS BY MAJOR VOCATIONAL PROGRAM AREA BY PERCENT, 1983-84

Major Program Area	Annual Enrollment	Annual Hours
BUSINESS OCCUPATIONS	36.1 %	28.2 %
TECHNICAL OCCUPATIONS	17.8	22.5
COMPUTER/DP OCCUPATIONS	13.7	12.1
HOME ECONOMICS/CONSUMER RELATED	9.6	5.6
PUBLIC SERVICE OCCUPATIONS	9.3	8.9
HEALTH OCCUPATIONS	5.4	10.2
AGRICULTURE RELATED OCCUPATIONS	2.5	2.6
PERSONAL SERVICE OCCUPATIONS	2.1	4.2
OTHER	3.5	5.7
TOTAL ALL VOCATIONAL PROGRAMS	100.0 %	100.0 %

Source: VEA and Course Activity Computer tapes for 1983-84 provided by the COCCC.

Program Planning

11. Program planning at the local level depends mainly on cooperative efforts by groups of CCC occupational administrators and direct contacts with local employers.

12. Greater contact between CCCs and private sector groups is being fostered and used by community colleges.

13. CCC occupational administrators expect changes in local program planning procedures and stronger linkage with the private sector to occur in the future.

14. The COCCC lacks a cohesive and agreed upon statement of the purpose and role of vocational education in community colleges in California--the emphasis of vocational education in relation to job training and the role of the COCCC operations and staff with regard to compliance, planning and setting priorities for responding to district needs is not consistent.

15. State level planning is hampered by an inadequate needs assessment and a management information system that does not provide data in a timely manner or useful format.

Program Funding

16. CCCs, in general, and vocational programs in particular, have been affected by declining levels of funding which have not kept pace with inflation, and inconsistent funding formulas have impeded rational planning and provided little flexibility.

17. As VEA funds declined (1981-1983), there has been an increased reliance at the local level upon funds from other federal and state job training programs or upon private contractual education--it is estimated that about 60% of the districts provide some type of contractual education.

Student Outcomes

18. Establishing criteria and procedures for identifying vocational students for purposes of accountability and for determining program impact is a continuing problem.

19. Statewide student and employer follow-up to determine and assess student outcomes remains limited.

20. There is growing consensus that diverse student characteristics and varying student goals demand increased efforts to assess the needs of students prior to program placement.

RECOMMENDATIONS FROM THE COMPREHENSIVE STUDY OF VOCATIONAL EDUCATION

Eight major and 14 supplemental recommendations resulted from this study. All of the recommendations fall into six areas: 1) Leadership, Mission, and Philosophy, 2) Program Planning and Coordination, 3) Student Services and Program Impacts, 4) Vocational Program Funding, 5) State Program Approval Process, and 6) State Information System.

It should be noted that this study was directed toward statewide and state level issues. The recommendations follow this mandate and are focused on topics that should be deliberated by the Board of Governors (BOG) with subsequent review and action by the COCCC. Because of this orientation, the study team made an effort to show the relationship of each major and supplementary recommendation to the eight BOG adopted vocational education policies. The topic of each BOG policy and its relationship to each study recommendation is displayed on Table 1-1.

The study recommendations are presented by topic in the same sequence noted above in Part V of this report. However, each major and supplemental recommendation is followed by one or more statements providing its rationale, clarification, or amplification.

Table 1-1

RELATIONSHIP OF STUDY RECOMMENDATIONS TO BOARD OF GOVERNORS ADOPTED VOCATIONAL EDUCATION POLICIES

BOG Policy Topic	Related Study Recommendations
1. State Leadership, Program Planning and Coordination as a Shared State and Local Responsibility	1.0, 1.1, 1.2, 2.0, 2.1
2. Allocation and Use of Funds	5.0, 5.1, 5.2, 6.0
3. Providing Access and Meeting Student Needs	1.3, 1.4, 4.0, 4.2
4. Assessment, Guidance and Counseling	4.0, 4.1, 4.2
5. Collaborative Efforts to Meet Job Market and Employment Training Needs	2.0, 2.1, 2.3, 3.0
6. Ensure that a Properly Qualified Professional Staff is Available to Deliver Vocational and Job Training Programs	2.4, 3.0, 8.2
7. Coordinated State and Local Endeavor to Assess Vocational Programs and Services	2.2, 2.3, 3.0, 7.0
8. BOG Efforts to Inform Various Publics About California Community College Vocational and Job Training Programs	1.0, 1.1, 8.0, 8.1, 8.2

LEADERSHIP, MISSION, AND PHILOSOPHY

RECOMMENDATION: 1 COCCC Mission Statement about Vocational Education

Given the changing demographics of the State, student demand, the growing need of industry and the State's economic development pattern, THE COCCC SHOULD EMPHASIZE THE PRIMARY FUNCTION OF VOCATIONAL EDUCATION AS PART OF THE MISSION OF CALIFORNIA COMMUNITY COLLEGES.

1.1 COCCC Leadership in Development of a State Policy for Human Resource Development

⇨ Given the diversity of perceptions and expectations of community colleges by the State Legislature, general public, students, and many educators themselves, THE COCCC SHOULD TAKE A LEADERSHIP ROLE IN ACTIVITIES AND AFFAIRS THAT WILL CLARIFY THE HUMAN RESOURCE DEVELOPMENT POLICIES OF THE STATE OF CALIFORNIA AND THE ROLE OF CALIFORNIA COMMUNITY COLLEGES AS VOCATIONAL PROGRAM AND JOB TRAINING DELIVERERS IN THE STATE.

1.2 Delivery of Vocational Programs By Comprehensive Local Community Colleges

⇨ Because of precedence and the demonstrated strength and effectiveness of CCCs in providing educational access to citizens of the State, VOCATIONAL PROGRAMS SHOULD CONTINUE TO BE OFFERED WITHIN THE CONTEXT OF COMPREHENSIVE COMMUNITY COLLEGES, BUT OTHER OPTIONS SHOULD BE CONSIDERED FOR COLLEGES THAT WISH TO DELIVER VE THROUGH DIFFERENT INSTITUTIONAL MODELS.

1.3 Role of Job Training in the Community Colleges

⇨ Based on the vocational education policies adopted by the Board of Governor's, THE COCCC SHOULD DEVELOP AND COMMUNICATE ITS SUPPORT FOR THE ROLE OF CALIFORNIA COMMUNITY COLLEGES AS A MECHANISM FOR DELIVERY OF JOB TRAINING.

1.4 Role of Apprenticeship in Community Colleges

⇨ THE COMMUNITY COLLEGES AND COCCC SHOULD EXAMINE THE AMBIGUITY SURROUNDING APPRENTICESHIP PROGRAMS WITHIN THE VOCATIONAL EDUCATION MISSION OF COMMUNITY COLLEGES.

PROGRAM PLANNING AND COORDINATION

RECOMMENDATION: 2 Area Program Planning and Coordination

REGIONAL AND AREA VOCATIONAL PROGRAM PLANNING EFFORTS AMONG LOCAL COMMUNITY COLLEGES SHOULD BE ENCOURAGED, STRENGTHENED AND UTILIZED BY THE COCCC.

2.1 Participation in the Planning Process

⇨ THE COCCC SHOULD EXPAND EFFORTS TO UTILIZE A BROAD BASE OF LOCAL DISTRICT AND EMPLOYER PARTICIPATION IN IDENTIFYING VOCATIONAL PROGRAM NEEDS, PRIORITIES, AND METHODS OF COLLABORATIVE PLANNING FOR VOCATIONAL AND JOB TRAINING PROGRAMS.

2.2 Local Vocational Educational Plans

⇨ USE OF LOCAL VOCATIONAL EDUCATION PLANS SUBMITTED TO THE COCCC SHOULD BE REVIEWED WITH THE OBJECTIVE TO SYSTEMATIZE AND SIMPLIFY SUCH DOCUMENTS AS PART OF A STATEWIDE PROGRAM PLANNING PROCESS AND NEEDS ASSESSMENT.

2.3 Use of Labor Market Information in Program Planning

⇨ STRONGER EMPHASIS SHOULD BE PLACED UPON UTILIZATION OF LABOR MARKET INFORMATION AND TRENDS FOR VOCATIONAL PROGRAM PLANNING AT BOTH STATE AND LOCAL LEVELS.

2.4 Vocational Administrators, Faculty, and State Staff Inservice Needs

⇨ THE COCCC SHOULD ESTABLISH AS A STATE PRIORITY THE IMPLEMENTATION OF INSERVICE ACTIVITIES AND PROFESSIONAL DEVELOPMENT PROGRAMS TO ASSIST VOCATIONAL ADMINISTRATORS, INSTRUCTORS AND STATE STAFF STAY CURRENT IN THEIR RESPECTIVE FIELDS.

RECOMMENDATION: 3 Development of Statewide Needs Assessment

THE COCCC SHOULD DEVELOP AND INITIATE A PROCESS FOR CONDUCTING A STATEWIDE NEEDS ASSESSMENT THAT CAN BE CARRIED OUT ON A CONTINUING BASIS.

STUDENT SERVICES AND PROGRAM IMPACTS

RECOMMENDATION: 4 Identification of Vocational Students

THE COCCC SHOULD CONTINUE, WITH COOPERATION FROM THE FIELD, TO IDENTIFY MORE SPECIFICALLY "VOCATIONAL STUDENTS" FOR PURPOSES OF DETERMINING PROGRAM ENROLLMENTS, PROGRAM IMPACTS IN TERMS OF STUDENT GOALS, NEED FOR STUDENT FOLLOW UP, VEA ALLOCATIONS, AND PUBLIC INFORMATION.

4.1 Student Assessment and Placement Models

⇨ THE COCCC SHOULD GIVE PRIORITY TO THE DEVELOPMENT AND IMPLEMENTAION OF STUDENT ASSESSMENT AND PLACEMENT MODELS AND ENSURE THAT THESE MODELS INCLUDE APPROPRIATE PROVISIONS FOR STUDENTS WITH VOCATIONAL GOALS.

4.2 Student Follow-up System

⇨ THE COCCC SHOULD CONTINUE TO SUPPORT AND EXPAND THE USE OF A VOCATIONAL STUDENT FOLLOW-UP SYSTEM THAT PROVIDES DATA ON A STATEWIDE BASIS ABOUT THE OUTCOMES OF VOCATIONAL PROGRAMS BASED ON STUDENT GOALS.

VOCATIONAL PROGRAM FUNDING

RECOMMENDATION: 5 State Division and Distribution of Federal VEA Funds

THE FORMULA FOR DIVISION OF THE CARL D. PERKINS VOCATIONAL EDUCATION ACT (PL 98-524) FUNDS BY THE STATE BETWEEN SECONDARY AND POSTSECONDARY INSTITUTIONS SHOULD BE REVIEWED WITH THE OBJECTIVE OF CHANGING THE PROCESS AND CRITERIA FOR DIVIDING THE FUNDS BASED ON NEED. IF SUCH A DIVISION CANNOT BE MUTUALLY AGREED UPON, THE MATTER SHOULD BE ADJUDICATED BY AN IMPARTIAL THIRD PARTY.

5.1 VEA Allocation Formula Used by COCCC

⇨ COCCC ALLOCATION OF FEDERAL VOCATIONAL EDUCATION ACT (PL98-524) FUNDS SHOULD INCLUDE THE USE OF STUDENT CONTACT HOURS OR FTE GENERATED ANNUALLY BY EACH PROGRAM AS PART OF THE ALLOCATION FORMULA WITHIN PERMISSIBLE PROVISIONS OF THE LAW.

5.2 Funding of Special Projects

⇨ AS PART OF ITS LEADERSHIP ROLE IN THE STATE, THE COCCC SHOULD FUND OVER A MULTI-YEAR PERIOD THOSE SPECIAL VOCATIONAL EDUCATION PROJECTS THAT HAVE AN IDENTIFIED NEED AND POTENTIAL FOR STATEWIDE IMPACT.

RECOMMENDATION: 6 Use of State Funds for Equipment

BASED UPON AN ACCURATE, EMPIRICAL AND UNIFORM METHODOLOGY WHICH RESULTS IN AUTHORIZATION OF A LINE ITEM, THE COCCC SHOULD DEVELOP A BUDGET PLAN TO CONTINUE FUNDING FOR RENEWAL AND UPDATING OF INSTRUCTIONAL EQUIPMENT FOR VOCATIONAL EDUCATION NEEDS IN THE STATE.

PROGRAM APPROVAL PROCESS

RECOMMENDATION: **7** Vocational Program Approval Process

In order to improve the accuracy of COCCC files THE CURRENT STATE PROGRAM APPROVAL PROCESS (for Vocational Programs) SHOULD BE REVIEWED AND MODIFIED TO IMPROVE ACCURACY AND CURRENCY OF STATE RECORDS.

STATE INFORMATION SYSTEM

RECOMMENDATION: **8** Coordination and Timeliness of State Reports

In order to improve the collection and utilization of locally generated reports to the State, THE COCCC SHOULD REVIEW THE PURPOSE AND USE OF EXISTING REPORTS TO DETERMINE HOW VOCATIONAL EDUCATION INFORMATION ON PROGRAMS, ENROLLMENTS, AND HOURS OF INSTRUCTION CAN BE MORE EFFECTIVELY COORDINATED AND UTILIZED.

8.1 Reporting of Non-VEA Vocational Programs

⇨ In order to permit the COCCC to carry out the function of information dissemination, A SYSTEM FOR OBTAINING DATA ON VARIOUS NON-VEA VOCATIONAL AND JOB TRAINING PROGRAMS AND ENROLLMENTS SHOULD BE INSTITUTED.

8.2 Faculty/Staffing Reports

⇨ In order to ensure a properly qualified staff, THE COCCC SHOULD INSTITUTE A SYSTEM FOR COLLECTION OF INFORMATION ABOUT VOCATIONAL EDUCATION INSTRUCTORS WHICH WILL PROVIDE ONGOING INFORMATION ABOUT THEIR EMPLOYMENT PATTERNS, DEMOGRAPHIC CHARACTERISTICS, FULL- AND PART-TIME STATUS, AND INSERVICE NEEDS.

CONCLUDING STATEMENT

This comprehensive study has shown the complexity of the issues and themes that affect vocational education in community colleges. It also compiled a body of information that gives a general picture of what might be called the state of the art in such programs in relation to the half dozen topics that were within the scope of the study. Most of the study recommendations deal directly with the need to strengthen or change activities at the state level to improve the effectiveness of vocational education in California community colleges. The areas for improvement range from a commitment by the COCCC to a philosophy encompassing vocational education to the mechanics of gathering data from local community college districts.

Guiding Principles for Assessing the Mission of Vocational Education

It should be noted that during the course of this study, other statewide efforts were being conducted to define the mission of community colleges or to address other elements of vocational programs. The plethora of suggestions emanating from these studies will pose a challenge to state and local vocational education decision makers. Finding a path through the maze of countervailing choices will not be easy without a clear set of guiding principles. So far as vocational programs in community colleges are concerned, this study points to five major guiding principles that should be kept in mind when deliberating the destiny of community college vocational education.

1. Vocational education must be recognized as a legitimate and equal component in the mission of community colleges. It is neither superior nor subordinate to other educational functions.

2. It is important to recognize that currently and in the foreseeable future, a plurality of community college students will seek vocational education as a means of achieving their goals. Many of these students will need remedial assistance and student support services to succeed in their programs, vocational and otherwise.

   Another aspect of vocational program enrollments with planning implications for local and state levels is the bimodal nature of student characteristics; namely, younger, full-time, day, new career oriented students versus older, part-time, evening, career improvement or retraining oriented students. The former group of students calls for stronger articulation efforts with secondary schools, curriculum design and program development efforts along the line of 2 plus 2 programs; whereas, the latter group calls for stronger emphasis on job training, contractual education, and closer working relationships with federal and state job training programs.

3. It is generally agreed that vocational education is best delivered under the auspices of comprehensive community colleges where all students are exposed to a broad range of opportunities in higher education. Within this comprehensive institutional setting,

vocational education will include specialized job training programs offered through federal, state and private industry sponsorship. Some job training will not fit neatly within the existing academic structures or decision-making processes utilized by many community colleges. This will pose continuous difficulty unless flexible procedures are developed and utilized for selecting, approving, and monitoring such programs. However, the strength and benefits of comprehensive institutions must be paid for by the additional burden of handling special circumstances and programs.

4. Vocational education by virtue of its mission must be flexible and responsive to many national, state, and local forces that may not have a direct or immediate impact on other educational programs. Therefore, the internal integration of vocational programs with other educational functions of community colleges must be achieved at the same time that rapid and unforeseen adjustments must be made to external circumstances imposed by economic, labor market, and technological changes.

5. As emphasis in funding and policy development shifts from local districts to the State, a corresponding change in COCCC functions and operations would appear in order. Furthermore, as the proportion of federal vocational funds diminishes, the level of effort devoted to compliance monitoring and reporting by the COCCC should give way to stronger efforts in overall state needs assessment, program coordination and allocation of available resources to meet local needs and requirements. This calls for a re-examination of the mission of COCCC in terms of leadership, organization, and modes of operation.

   Finally, in order to describe the nature and scope of vocational education, a more exacting management information system for collecting and analyzing data is required. This data system needs to exceed the current orientation to compliance for federal VEA funded programs.

A Conceptual Model of Relationships Among Major Instructional Components

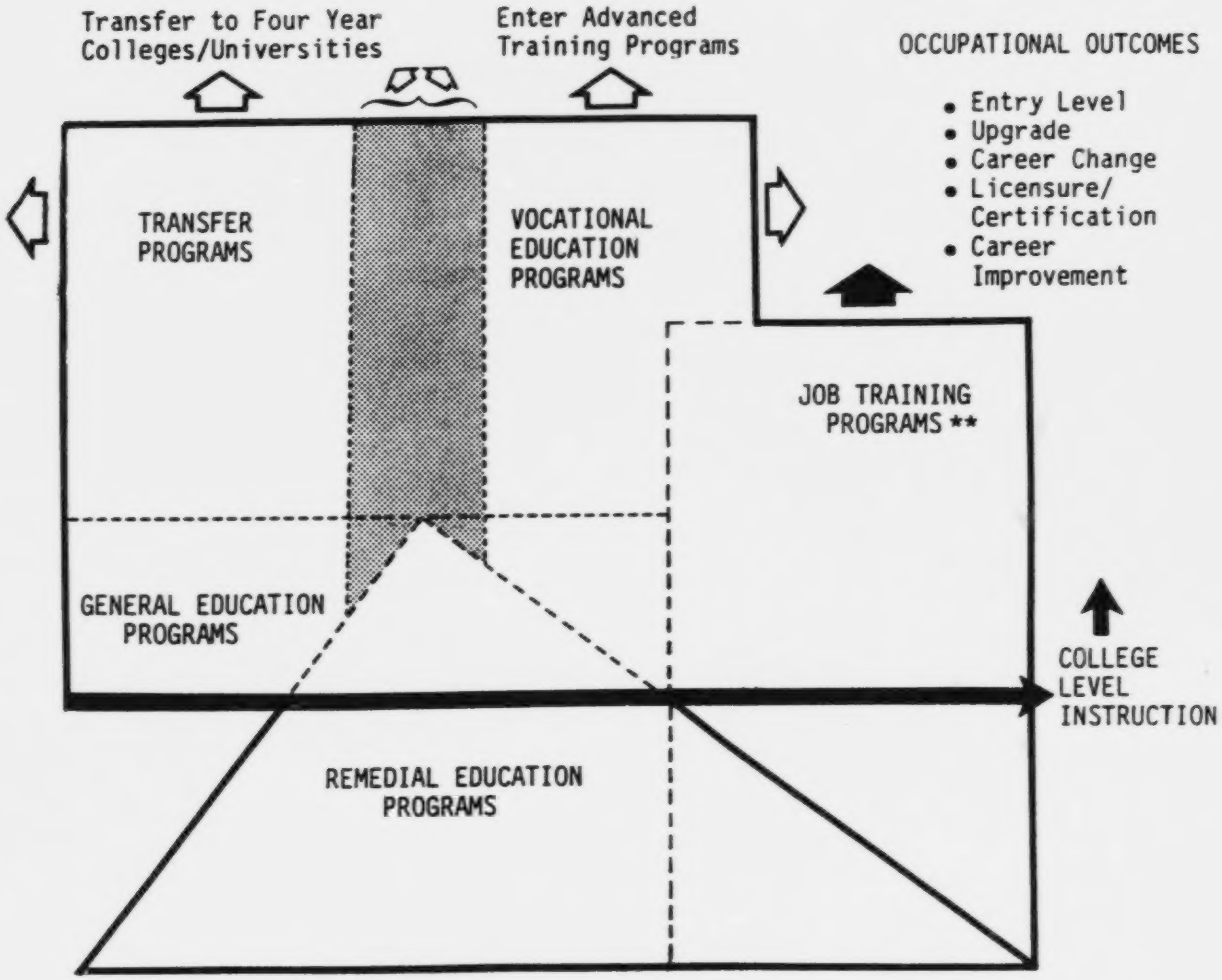
The conceptual model shown in Figure 1-D incorporates the principles noted above in depicting the relationships among four major instructional functions of community colleges. Counseling and guidance services are not shown in the model, but they too are an important part of the community college mission.

The first point of the conceptual model is that all instructional programs must be assessed as to whether they are college level. No course or program, regardless of subject area, should be awarded college credit, if it is not deemed to be college level. This does not mean that such instruction should be excluded, provided that the local community colleges offering it have a bonafide case for doing so if it meets other specified needs of students or employers or serves defined community needs.

The second point is that the line between college transfer and vocational education programs is not precise. There is an overlapping instructional (shaded) area. Students engage in both types of instruction and many move through the system, indistinguishable from each other in terms of the general

Figure 1-D

CONCEPTUAL MODEL* OF RELATIONSHIPS AMONG INSTRUCTIONAL COMPONENTS OF THE COMMUNITY COLLEGE MISSION


Transfer to Four Year Colleges/Universities
Enter Advanced Training Programs
OCCUPATIONAL OUTCOMES
• Entry Level
• Upgrade
• Career Change
• Licensure/ Certification
• Career Improvement
TRANSFER PROGRAMS
VOCATIONAL EDUCATION PROGRAMS
JOB TRAINING PROGRAMS **
GENERAL EDUCATION PROGRAMS
COLLEGE LEVEL INSTRUCTION
REMEDIAL EDUCATION PROGRAMS

* A conceptual model is a simplified version of reality to assist in visualizing and understanding the complexities and relationships of actual processes. This model shows the relationships among four major instructional components of comprehensive community college programs: 1) General Education as part of Transfer and Vocational Education programs, 2) Overlapping transferability of course work from both Vocational Education and academic Transfer programs, 3) Overlap of Job Training, above and below college level, as part of Vocational Education programs in community colleges, and 4) Interplay with and relationship of Remedial Education, above and below college level instruction, to all other instructional programs, including transfer courses.

** Job Training programs refer to short-term intensive training offered under the purview of community college vocational education programs. This includes both public and private industry funded programs, such as Job Training Partnership Act (JTPA), Employment Training Panel (ETP), Apprenticeship programs, Adult Education or other non-credit courses, Contractual Education with private employers, and other job training above or below college level instruction.

education courses they take.

The third point is that job training has become a part of the vocational education in many community colleges and must be accommodated within the comprehensive institutional setting because of the absence of public postsecondary institutions that specialize in job training.

The fourth point is that remedial education serves all segments of the instructional program; transfer, vocational, job training, and general education. As long as community colleges subscribe to the importance of providing access to higher education, remedial programs will remain essential, but the way in which students progress through such programs must also be a factor in assessing their contribution to the overall mission of community colleges.

Finally, in vocational education, as in other disciplines, zeal to attain excellence need not impose strict administrative conformity, programmatic rigidity or avoidance of the needs of diverse student populations. The path of progress in vocational education will lie in more participative methods for allocating and managing available financial, physical, and human resources. New modes of decision making involving broad based input will be called for during the coming years. Above all the commitment to the role of vocational education in the overall mission of community colleges in California will have to be articulated and promoted by the COCCC so that local districts, students, legislators, employers, and the general public will have a clear understanding of its importance and contribution to the well-being of the State and the students who profit from such instruction.

> ☐ "People, organizations and other living organisms have learning curves that are S shaped. In learning, at first the individual has a period of slow orientation followed by rapid acceleration. At a certain point, the learning curve begins to slope downward. ...If an organization does not change its learning curve, that is, get on a new curve, its success life is sharply limited.
>
> - Phillip Moffit, President, Esquire Magazine

Part II

A COMPREHENSIVE STUDY OF VOCATIONAL EDUCATION IN CALIFORNIA COMMUNITY COLLEGES

Background of the Study

Vocational education has risen to national prominence as foreign business competition has threatened our nation's status as a world leader in production of goods. As a result, application of technology, human resource development and preparation of a trained work force have become joint priorities in an effort to improve productivity and increase industrial efficiency. At the same time that the demand for highly trained workers has escalated in such fields as aerospace, computers, telecommunications, and other advanced technological industries, unemployment rates among the unskilled, under-educated, economically disadvantaged, and displaced workers have remained relatively high. (79) (See references by number in Appendix A). Chronic unemployment among youths, especially among minorities, has raised grave concern nationally and in California. (12,77)

Federal training programs for targeted populations as well as traditional vocational education have emerged as important functions of postsecondary educational agencies. As a result, for the past two decades California community colleges have been pressed to adopt training programs that meet the changing needs of employers, keep pace with dramatic technological upheavals, anticipate shifting labor force demands and at the same time meet the needs of special student populations. The problems associated with meeting these multiple goals have soared in magnitude and complexity.

The role of community colleges in preparing a diverse student population for employment as well as attending to the needs of special students has given rise to serious questions about the proper "mission" of community colleges and a call for some degree of educational reform. (19,20,54,148)

Critics point out that even though some vocational programs taught in community colleges are postsecondary in nature, they do not meet college level standards because the job skills taught are too low or basic remedial skills are required as part of the instructional process. Some believe that attention paid to such noncollege efforts has adversely affected the transfer function of the community colleges. (27,28) In California this question has been addressed by various studies and task forces. This attention has occurred during a period of declining financial resources and a shift from local to state dominance in funding support and policy-making power.

During this intense period of review several external factors have come into play that affect community college operations and the offering of vocational programs. First, due to the influx of nontraditional students at a time when total enrollments have declined from a high of 1.4 million students in 1981-82, the characteristics of community college students have changed from a traditional younger college-age group to a more diversified, and perhaps less well prepared, group of clients who seek cultural, educational and economic leverage by attending community college. Second, there has been a shift in the interest of many students from the pursuit of a traditional college transfer program to career preparation. (95) The Statewide Longitudinal Study, 1978-81 indicated that about two-thirds of entering community college students take one or more vocational courses even though their primary goal for attending community college may not be vocational. (139) However, a recent student survey of student goals indicated that about one of every two students who attended community college in California had a primary vocational goal. (72)

Thus, the issue of diverting attention from transfer programs to vocational and other instructional functions may be related more to changing student interests and goals and external economic conditions than to deliberate institutional decisions to diminish the role of the college transfer mission. Nevertheless, the transfer function is important to the higher education system in the State and has created keen interest in reviewing the overall mission of community colleges. Such interest is evidenced even by groups outside of the education community. For example, the California Roundtable, an organization composed of 86 major corporations doing business in the State, commissioned a study of California's community colleges to examine key issues and policy concerns related to the mission and governance of community colleges. (11) Concurrently a specially appointed commission is reviewing the Master Plan for Higher Education which addresses the role of community colleges in higher education in California and is expected to identify the part that vocational education and other nontransfer programs will play in the mission of community colleges. (21)

Other recent studies have addressed the goals of community college students, the capital outlay needs for equipment and facilities in community colleges (31, 38), the use of the placement rate concept as a means of assessing vocational education (42), the prospect for differential funding in community colleges (101), reactions of employers to vocational program students (15), student outcomes in vocational programs (16), and the characteristics of special needs populations attending community colleges. (97) A state coalition of community college organizations has developed a series of "concept papers" related to various issues confronting vocational education in community colleges. (22) Recent and current studies include an examination of contract education between private industry and community colleges. (82) Results from the current statewide study of contractual education will be available in 1986. Each of these studies contributes to the overall picture of community college vocational program offerings and needs. So far as possible, in this study they were considered in the review of information describing the status of vocational education in California community colleges.

Purpose of the Study

Each of the foregoing and other studies focuses on various aspects, practices, and policies related to the delivery of vocational programs and services in community colleges. In the face of such widespread interest and concern about community colleges in general and vocational education in particular, this study was undertaken upon the urging of the California Community College Occupational Education Coalition and funding approval by the Chancellor's Office, California Community Colleges (COCCC).

> THE PURPOSE OF THIS COMPREHENSIVE STUDY WAS TO INVESTIGATE AVAILABLE DATA AND INFORMATION THAT DESCRIBED THE STATUS OF VOCATIONAL PROGRAMS AND SERVICES PROVIDED TO STUDENTS ENROLLED IN CALIFORNIA COMMUNITY COLLEGES.

It should be noted however that even though the purpose and scope of the study was defined, it was not possible to portray the picture of vocational education in the absence of information about the historical development of community colleges in the State, the guiding principles and federal legislative mandates for such programs, and the relationship of vocational programs to other missions and functions of community colleges. (32). Thus, these areas were reviewed so that the context of vocational education in community colleges could be identified.

The study was limited to community colleges and did not include investigation of vocational programs delivered by other public or private agencies. Furthermore, this study concentrated on data that would portray a statewide view of the state of the art in vocational education rather than a picture of any single or individual community college.

Procedures Used in the Study

In order to maximize allocated resources and reduce duplication of previous or simultaneous research, this study focused on available documented information and data that described the statewide status of vocational programs, students, and services. Study activities included efforts to identify and utilize existing research reports, state data files describing vocational programs, enrollments, student characteristics, hours of instruction in vocational programs, funding data, planning efforts, and other elements related to vocational education and job training. During the study efforts were made to concentrate on data collection and synthesis on topics not covered by other concurrent research.

The heavy emphasis on documentation and data files was intentional so that generalized complaints about the accuracy, completeness, and currency of such information could be traced to specific reporting problems and issues. Even though state data files may contain some inaccuracies, the same data files are used to report information for compliance with federal regulations and for allocation of funds for certain vocational programs. Therefore, it is paradoxical to claim that such information is not suited for descriptive analysis when it is used by the State for fiscal and accountability purposes.

The study team worked with a project advisory committee and met cooperatively with two other statewide groups throughout the course of the study, 1) the State Occupational Education Advisory Committee for Evaluation and Research and 2) the California Community College Occupational Education Coalition. These meetings were used to obtain input about current issues and activities in the field that were germane to the study and to provide an opportunity to receive feedback on preliminary study findings and data analysis.

Utilization of documented information was augmented by field contacts with many statewide organizations and agencies concerned with vocational education in community colleges. These groups reviewed preliminary findings or provided information that could not be obtained from existing files and printed reports. Whenever possible, this enterprise was conducted during group meetings rather than through a litany of individual personal interviews.

Information for this report was compiled from the following:

- A review of over 150 reports, documents, data files, and other books and articles related to California community colleges and/or vocational education issues. These are listed in Appendix A and referred to by number throughout the text. In addition, the bibliography used for an earlier study of the placement rate concept was reviewed for relevant information and references.

- A written survey of current practices and trends in community college vocational programs was conducted with administrators of vocational programs and student services. Usable responses were obtained from 52 of 70 districts (74%). In the final analysis, this survey represented 75 of 106 colleges (71%) and 87% of the ADA generated in community college vocational programs in 1983-84. A list of the responding colleges is in Appendix B.

- Personal, group, and telephone interviews were conducted with 75 knowledgeable persons in 45 state agencies, organizations and private firms in California to obtain reactions to various preliminary findings and issues concerning the quality and status of vocational education in community colleges. These contacts included faculty, administrators and staff members from such organizations. In addition group presentations were made to a dozen agencies and professional organizations concerned about vocational education issues in community colleges. These contacts and presentations are listed in Appendix C.

- The State Plan for Vocational Education for 1983-84 and other pertinent documents provided by the COCCC were reviewed to identify the policies and goals that set the context for vocational education in California community colleges. (44,48,51,53,76,152)

- The written plans for vocational education for 1983-84 in 18 randomly selected local districts were reviewed. In addition, plans for nine of these same districts were reviewed for 1984-85 in order to determine if statewide needs could be identified from a composite of local plans. Application and claims forms from all districts were examined to determine the extent of VEA expenditures in 1983-84. (57)

Study Phases

During the project, the study team met with the advisory committee four times.

For purposes of scheduling project activities and maximizing the collection of information, the study was divided into six phases:

- Identification and classification of information to be used in the study
- Identification of the sources and location of data, reports and documents to be used for describing the status of vocational education in community colleges
- Collection of required data and contacts in the field with appropriate agencies and organizations
- Organization, assembly, and analysis of available information
- Synthesis of information, preliminary findings and conclusions, and feedback from the advisory group and other state organizations
- Final identification of study themes, identification of further management information and research needs, recommendations and preparation of technical summary report.

Scope of the Investigations

The areas of investigation (major data subsets) in this study were identified and placed in priority order as a result of advisory committee activity, consultation with the Vocational Education Unit in the COCCC, and input from contacts with the two statewide organizations noted earlier. Although there is some overlap among the major data subsets, the study pursued information related to seven broad areas. Specific topics that were examined are noted next to each of the seven areas listed below.

1. STUDENT DATA:	Total occupational program enrollment, special student populations, enrollment by ethnic group and sex for each of the 30 largest vocational programs in the State, and socio-economic characteristics of students with a vocational goal while attending college.
2. PROGRAM DATA:	Number of approved programs using TOPs (Taxonomy of Programs) as the basis for analysis, size and enrollments in the largest programs, level and types of programs offered in the field, and number of WSCH (Weekly Student Contact Hours) generated by the major programs that were offered.
3. PROGRAM DELIVERY PATTERNS:	Past and projected practices survey among community college vocational administrators and student services officers, review of district plans, identification of program delivery modes, and a review of faculty characteristics.

4. PROGRAM PLANNING: Review of the state **five year plan**, review of local community college application and claims forms, district plans, and review of Board of Governors (BOG) policies and goals for vocational education, program approval process, statewide needs assessment efforts, use of advisory committees, use of labor market information, and involvement with private industry.

5. PROGRAM FUNDING: Level of funding by program and categorical areas, sources of funds for other job training programs and services provided by community colleges, utilization of VEA funds by local districts, and comparison of items of expenditures reported by local districts.

6. STUDENT OUTCOMES: Type and availability of student support services for vocational students in community colleges, extent of follow-up information to indicate the impact of programs on students, placement services, and other indicators of student outcomes.

7. CRITICAL ISSUES and THEMES: Based on a review of the historical development of community colleges in the State, a review of pertinent documents and other study findings, identification of major themes, issues, or trends that affect the delivery and/or quality of vocational programs and services in community colleges now or in the near future.

These major data subsets defined the scope of collection and analysis of information and provided the basis for identification of major themes and critical issues. They also provided the framework for organizing and reporting study conclusions and recommendations. Thus, the study endeavored not only to describe the status of vocational education in community colleges, but to identify the quality and completeness of existing data sources and reporting procedures so that suggestions for improvement might be made by the study advisory committee.

Factors to be considered when reviewing the study findings are:

- The study was limited to vocational programs in California community colleges.
- The base period for reviewing reported program and student information was 1983-84 which was the most recent fiscal period for which complete data were available when the study started. This was prior to the implementation of the Perkins (Vocational Education) Act of 1984.
- The study orientation was toward statewide activities and patterns rather than individual community colleges. The study effort was not directed toward evaluating individual programs, services, or colleges.

- The study was data oriented. In other words, the effort was designed to describe the status of vocational education in community colleges that could be supported by factual evidence rather than by anecdotal cases or by what individuals thought vocational education in community colleges "ought" to be. One written survey was conducted with administrators of vocational programs and student services to identify practices and trends in local community colleges.

Within the context of the defined areas of investigation and the limitations noted above, the information summarized here is presented in Part IV of this report. Much of the information in these parts was included in individual progress reports that were circulated during the study to the advisory committee and various groups who were contacted during the study. The key addition of this report is the synthesis of information so that central themes and issues could be presented in a context which might not be possible by looking at the individual areas of investigation alone.

☐ "We need structures that are built, not only on the acceptance of individual differences, but on explicit recognition of their value to our society."

- from Developmental Education in the 1980's by K. Patricia Cross

Part III

CHRONOLOGICAL DEVELOPMENT OF COMMUNITY COLLEGES AND THE RELATIONSHIP OF VOCATIONAL EDUCATION TO THEIR MISSION

In order to understand the status of vocational education in community colleges today it is useful to know about the chronological development of community colleges in California and the parallel growth of vocational education as part of their mission. This study traced the development of community colleges since their inception in California.

The findings were organized into five major areas: 1) chronological establishment and growth rates of community colleges in the State by decade along with estimated statewide community college enrollments for selected years, 2) key factors that affected the mission of vocational education in community colleges in each decade, 3) important state and federal legislation that affected community colleges and vocational education, 4) examples of events and trends that had an impact on community college development in California, and 5) selected national and world events that influenced postsecondary education nationally and especially in California.

Major findings related to these five areas are presented by decade on the chart shown in Table 3-1 at the end of this part. Information for this chart was gleaned from myriad books and references, however, a major contribution toward the history of vocational education was derived from the work of Mel Barlow. (5,9) Other statistical and factual information was taken from various state and federal reports. (29,39,49,50,59,124,144,145) Specific references are sited as appropriate in the text contained in following sections.

No brief historical account can include all the possible factors that have had an impact on community colleges, but the background information about community colleges shows two important things: 1) the actual events that provide a factual picture of what happened to community colleges and how they evolved as the institutions they are today and 2) an overview of the factors beyond the events themselves that affect the operation and mission of community colleges.

HISTORICAL DEVELOPMENT OF CALIFORNIA COMMUNITY COLLEGE VOCATIONAL EDUCATION

The study of vocational (also referred to as occupational) education in community colleges seems to be a study of the struggle for recognition and acceptance. Many social and cultural values appear to make it necessary for occupational education programs to prove repeatedly their worth and contribution to individual and social well being. (100) Nevertheless, today vocational education enjoys a popular support that is widespread (40, 98) and alarming to those who place a greater value upon traditional academic disciplines. This philosophical polarity is one of the reasons for differences between those who are concerned about the "vocationalization" of higher education (78, 124, 125) and those who infer that general education, including the humanities and fine arts, may be less relevant for students who are preparing for the workplace than some academicians believe. (132) National statistics and social analyses indicate that the group of youths who will enter the workforce without the need for a baccalaureate degree comprises the vast neglected majority of high school students. (129) But some critics equate quality with subject matter rather than with educational outcomes. (109)

Based on a review of programs and student enrollment patterns both academic and occupationally related programs are necessary in order to meet the needs of California's citizens. Thus, neither academic nor vocational polarization is the reality of community colleges in California. (10,56,104)

The following highlights summarize the historical development of community colleges and vocational education that are presented in detail in Table 3-1.

Chronological Establishment and Growth of Community Colleges

In 75 years over 100 community colleges have been established in California. The State's 106 public community colleges constitute the largest "system" of higher education in the world. (70) Growth of the community colleges has been the hallmark, pride and, perhaps, obsession of the system. The latter characteristics may reflect the mind set of the State itself.

Students in California community colleges comprise about 25 percent of the nation's total public two year community college enrollments. (3) And although there is some concern about the transfer rates and functions of community colleges, community colleges provide the portal to higher education for a large majority of California's high school youths. (30,33)

The functions they serve and the manner in which the locally oriented community colleges deliver programs provide a dazzling and sometimes confusing picture. One mid-western community college administrator commented to the study team, "When we were looking for a model to follow in setting up our statewide system, we came to California to look over your community college system. We left shaking our heads. We decided that we were not like California. No place is like California."

Many California community college educators would agree. Here are a few of the reasons why.

- SINCE THEIR INCEPTION, COMMUNITY COLLEGES HAVE GROWN AT AN UNPRECEDENTED RATE in terms of number of institutions, programs, and enrollments. This growth was characterized by:
    - Rapid growth between 1910 and 1930s, a slow down until post-WWII (1950s), and a massive facilities build up between the 1950s and late 1970s, with the greatest growth occurring during the decade of the 1960s.

  - From 1950 to the late 1970s there was a 66% growth in the number of community colleges in California.
  - By 1984, 106 community colleges were organized into 70 individual districts which served the population of all 58 counties in the State. In addition to 106 campuses, about 45 centers were operated by community college districts, and numerous off-campus sites were used to deliver instructional programs in private industry facilities, prisons, military bases, shopping centers, and other community locations.
  - Total CCC enrollments grew 13 times between 1950 and 1981-82 when the peak year of enrollments reached 1.4 million.

- THE 1980s INTRODUCTED A PERIOD OF CONSOLIDATION, REDUCTION, AND REFINEMENT in terms of the number of institutions and programs, and review of educational functions in California's community colleges.
  - After 1978 no new community colleges were established in the State and several multicollege districts reduced the number of autonomous college operations, i.e., Marin Community College District and Los Angeles Community College District.
  - Of the last 14 community colleges established since 1969, 12 were expansions in multicollege districts --
    - Four of the newest colleges serve small rural or outlying areas
    - Four serve primarily suburban areas
    - Three serve larger urban/suburban areas
    - Three serve large or central urban locations
    - Nine of the 14 had fewer than 5,000 total credit enrollments in 1983-84.
  - Between 1976 and 1984 academic years, the number of state approved programs decreased by 5 percent (from 7,434 to 7,073), most of these reductions occurred after 1979-80 and passage of Proposition 13. (66)
  - While the number of approved programs decreased between 1980-81 and 1983-84, the actual number of vocational courses reported by community colleges in the State increased by 26% compared with a 13% increase in BA transfer liberal arts & science courses. (61) During this same period actual student contact hours in vocational courses decreased by 31%. Thus, the number of vocational courses increased while the total number of instructional hours in such courses decreased.
  - After 1981-82, when peak community college enrollments were recorded in the State (1.4 million), total statewide enrollments decreased to about 1.2 million in 1983-84; however the proportion of students enrolled in vocational courses did not diminish.

In 1976, the BOG adopted the following statement of philosophy and goals:

> "The Community Colleges of California are locally governed post-secondary educational institutions dedicated to the principle that society will benefit when all persons within it have the opportunity for life-long learning. To that end, the California Community Colleges are committed to providing career development, skills improvement and job retraining along with a full range of academic courses to broaden cultural, ethical, social and self-awareness."(49)

Mission of Vocational Education in Community Colleges

Although the earliest "junior colleges" were founded to prepare students for transfer to four-year colleges and universities, the role of vocational education soon took its place in the curricula along with student services. The original mission of preparing students for higher education has expanded over time to include a wider range of educational needs.

- **THE ROLE OF VOCATIONAL EDUCATION HAS GROWN AS PART OF THE EDUCATIONAL MISSION OF COMMUNITY COLLEGES AND REMAINS AN IMPORTANT AND INTEGRAL PART OF THE COMMUNITY COLLEGE MISSION IN THE COMMUNITIES THEY SERVE.**
  - VE grew into an integral part of the CCC curricula prior to WWII, was accelerated by WWII due to defense related training programs (126) and has grown in importance through the mid-1980s until it represents about 35 percent of the total community college credit and noncredit workload in the state. (49,61)
  - Between 1960 and the mid-1980s the portion of CCC students enrolled in at least one vocational course shifted from 13% to over 75%.

State and Federal Legislation

State legislation authorizing community colleges recognized the local orientation of such institutions. Until Proposition 13, community colleges were governed and taxed in large measure by local prerogative. Since Proposition 13, the tradition of local governance and control has been sorely stretched in light of the shift to state funding and decision-making power.

In terms of vocational and manpower training legislation after WWII emphasis was placed on access and equity issues to ensure that minorities and under-served populations such as women, handicapped, disadvantaged, limited English proficient (LEP), and displaced homemakers could obtain training and support services that would help them gain economic independence. This "social agenda" for vocational education was expanded during the late 1970s and early 1980s when a new type of displaced worker was created by plant closures in California and elsewhere (automobile plants, tire manufacturers, food processors, lumber mills, etc.). The new breed of unemployed was comprised of people who had been well-paid, well-trained, and held solid employment records until economic or technological conditions led to unemployment through no fault of their own. Thus, the need for "retraining" began to appear in state and federal initiatives. The link between training and economic development became a strong force in such programs as illustrated by the Employment Training Panel (ETP). (90)

- FEDERAL AND STATE LEGISLATION AFFECTING VE HAS SHIFTED FROM PROGRAM ORIENTATION TO PEOPLE PLACING EMPHASIS ON ACCESS FOR MINORITY AND OTHER NONTRADITIONAL POPULATIONS--BOTH LEVELS HAVE TREATED CCCs AS A DELIVERY SYSTEM FOR MEETING EMPLOYMENT TRAINING NEEDS AND NATIONAL PRIORITIES RATHER THAN AS PART OF HIGHER EDUCATION PER SE.

  - The lines between traditional vocational education (VE) and short-term job training have become blurred in the eyes of many legislators, the general public, students and some educators due to the complex and overlapping nature of federal and state employment training programs.

  - The occupational focus of federal vocational legislation has not changed greatly since the Smith-Hughes Act of 1917 when few students finished high school, the labor movement had not gained legislative support, and industries in aerospace, telecommunications, electronics, and other high tech fields were unknown. (5)

  - Federal vocational legislation limits programs to pre-baccalaureate levels for purposes of preparation for job entry, upgrading or more advanced training. This strict limitation is not compatible with higher education in universities which engage in pre-professional preparation and for many technological fields that require more than two years of **postsecondary t**raining. Some people suggest doing away with operating vocational programs separately and folding them under broader academic **disciplines**, but the implications for meeting VEA funding requirements in such vocational programs would still remain.

  - The Perkins VE Act of 1984 reinforces emphasis on access and service for special needs populations, many of whom possess less than college level educational preparation or necessary motivation. (18)

  - Since the mid-1960s a series of federal job training acts have been directed toward providing short-term training to reduce unemployment and underemployment for specially targeted populations. Community colleges have played an important part in the delivery of these "manpower" programs (MDTA, CETA, JTPA, etc.). Such programs are noted by the following characteristics.

    - Most are offered under the auspices of the Department of Labor whose mission is to reduce unemployment rather than the U.S. Department of Education (USDE) whose mission is education of the citizenry; thus policies, regulations, operational patterns, and reporting requirements differ from those governing traditional vocational education.

  - Training is often specifically aimed at economically and educationally disadvantaged populations who have little desire to obtain general education as part of their training. Many of these students also need assistance outside of training to make them employable (financial, medical, transportation, remedial education and other services such as child care).

  - Funds for such federal programs often flow to the service delivery area (SDA) rather than to training institutions. Recent funding procedures often call for competition among training providers and many community colleges are not prepared to deal with this administratively or financially.

- The state legislature often considers and passes legislation that utilizes community colleges as delivery institutions for social or training services that are not collegiate in nature, i.e., "GAINs" Bill (AB 2580).

Events and Trends Affecting Community Colleges in California

A few of the major trends that affect community colleges and vocational education in California are noted below.

- Junior colleges originated under the direct control of secondary schools even though they were postsecondary institutions. In many cases 13th and 14th grade instructional programs shared facilities, teachers, and policies as well as conditions of the state education and administrative code. (35) Even though the separation from secondary schools was achieved in the 1960s, the connection with secondary level state policies remained for community college vocational education because of the "sole state agency" provision of federal VEA legislation. Vocational education supported through federal VEA funds is approved by the State Board of Education (SDE) which serves as the designated sole state agency. There is some reason to believe that the State Board has only "marginally met its objectives as the sole state agency over the years -- vocational education has not been a priority." (17, p.8) Futhermore, the division and distribution of VEA funds between secondary and community college programs is largely a negotiated process rather than one based upon agreed upon criteria and procedures.

- Junior colleges changed to community colleges in accordance with their expanded mission during the 1950s. This shift in mission signalled the expansion of programs and services to community locations and sites during the following decades. In part, this outreach effort was undertaken to serve community needs; in equal measure it was necessitated by the swelling ranks of students who followed the postwar period because of the GI Bill and the extended opportunities for women and other populations who entered the open door of community colleges. (2) As a result of this community oriented mission, critics within the system as well as outsiders to it claimed that the quality of programs suffered and that the community colleges had succumbed to the temptation to "be all things to all people." Some educators, taxpayers, and legislators felt that as long as the local taxpayers were footing the largest share of the cost, this was deemed a virtue; when the payload shifted to the state, it became a sin.

- Community colleges act as the primary deliverer of designated adult education programs in about 20 locations in the State. Secondary schools or both secondary schools and community colleges offer adult education programs in the remaining areas. This multi-division of adult education has posed delineation problems for the two delivery systems. Each is concerned about the resulting competition in vocational and remedial education. (130) This issue was rekindled in 1984 by the adopted a BOG policy stating the goal to have community colleges become the primary and presumptive deliverer of adult vocational programs in the State. (107)

- In an effort to respond to the needs of the private sector, some community colleges in California have entered the arena of contractual education. The number, type, and size of contractual education programs offered by community colleges in the State is not reported separately to the COCCC, but it is estimated that about 60 percent of the districts engage in some level of contractual education. A statewide study of this mode of instruction is currently being undertaken and results are expected by mid-1986. Regardless of the outcome of this study, it is noteworthy that contractual education is another avenue by which community colleges have attempted to build liaison with the private sector.

National and World Events

Community colleges do not operate in a social, economic or political vacuum. The demographic, technological, and social changes that have occurred since the start of the twentieth century have **altered** the way people live and work and, consequently, the functions served by community colleges. The baby boom of the 1940s foretold the enrollment pattern in higher education during the 1960s and 1970s. Political and economic forces affect the liberal-conservative cycles under which education is funded and supported. These factors affect all educational programs, but nowhere is the effect greater than the way technology in the workplace dictates the type and number of jobs that will be required, skill levels needed, or work attitudes and knowledges necessary for employment.

Shifts in occupational opportunities have a profound influence on vocational programs. One in 9 dollars of California's annual product is generated in the aerospace and defense industry. (136,137) Thus, the move away from agriculture to manufacturing and now to technology and information processing as the economic base for employment is a determining factor in what vocational programs should be offered (1,4,127), how many teachers are needed (85), equipment and facility requirements, program content and curriculum development (41, 105), the way programs should be designed and delivered to meet individual student and employer needs (123, 141), and even the way delivery of vocational education should be organized and administered. (13,14,34,128)

- HISTORICAL TRENDS INDICATE THAT CCC VE PROGRAMS HAVE TO BE MORE RESPONSIVE TO EXTERNAL FORCES AND EVENTS THAN DO TRADITIONAL ACADEMIC TRANSFER PROGRAMS.

    - Transfer programs are supposedly determined by prescription of higher education requirements which are characterized by a continuum of scholarly and academic values that are internally consistent, highly predictable, and slow to change. This was illustrated by the comment of a department chairperson at a California State University, "In an effort to keep current our agreements with community colleges to accept certain transfer courses, we request course outlines for those courses for which they want transfer credit. One community college sent us 105 individual courses in computer science for which they wanted transfer credit units -- only 4 of these were required for a major at our institution; the rest would only be accepted as electives."

    - VE programs are encouraged to interface with and respond to rapid changes in the external social, technological and economic environment which are difficult to measure or predict. (141) This leads to:

        - Conflicts in curriculum approval and program decision making at local institutions
        - Concerns about what is college level and what is quality at both state and local levels
        - Need for VE instructors to keep current with changes in their respective fields.

    - Interaction between educational institutions and private industry involves differences that must be accommodated that might not occur within the academic community alone. These factors have led to increased emphasis by the private sector to provide its own classroom instruction. (83,86,92)

. Time Orientation:	Industry operates in a short time frame and fast decision turnaround period. Many academic decisions take longer to discuss and develop.
. Action Orientation:	Industry is action oriented, getting things done and responding quickly to changing market conditions. Educational agencies are often slower and more deliberate in identifying the need for change and taking action.
. Human Development Priorities:	Industry is most concerned with job performance skills and attitudes while education must be concerned about broader development of a whole person and intellectual growth.

. Problem Orientation:	Industry is solution oriented, attempts to define options, problem specific action, closure and prompt decisions even before all of the possible information is available. Education is oriented to continued examination of the problem and compiling a complete body of knowledge before reaching conclusions or making decisions.
. Orientation to Hierarchical Structure:	Industry operates within an organizational hierarchy of defined roles of people working together even as teams. Education tends toward equalitarianism, open structures that often reject imposed organizational hierarchy or managerial structure. Industry seeks to define responsibility while education often attempts to defuse it organizationally.

Perceptions of Vocational Education in Community Colleges

The review of the history of California community colleges reveals a dichotomy in the perceptions of what they are expected to be as educational institutions. These perceptions vary widely but can be rendered to two major camps which create both real and imagined problems for vocational education.

- As viewed by many state agencies and a sizeable portion of the academic staff in the community colleges themselves, COMMUNITY COLLEGES ARE SEEN AS ONE OF THREE SEGMENTS OF THE HIGHER EDUCATION SYSTEM OF CALIFORNIA.

  For those who hold this view, the results are

  - Greater value is given to the higher education role than to other broader postsecondary roles of community colleges.
  - High emphasis is placed on the transfer function with little or low regard for other functions such as job training.
  - The perception exists that the community colleges are a SYSTEM TO CARRY OUT STATE POLICIES AND PLANS.

- As viewed by many local community college administrators, policy makers, staff, service area residents and employers, COMMUNITY COLLEGES ARE SEEN AS INDEPENDENT INSTITUTIONS ESTABLISHED TO MEET LOCALLY DEFINED NEEDS AND PLANS.

  Those who hold this perception believe that community colleges

  - Were founded by local initiatives and operated under policies approved by local boards of trustees and are seen as individual units.

- Are best suited to meeting local or regional needs which include more than serving the purpose of higher education; they function to meet social, cultural, and economic needs of the service areas in which they are located. (81) This is exemplified by the fact that 11 college districts provided 52 percent of the total transfers to the University of California system in 1983. (30)

This dichotomy about community colleges provides the basis for the conflict about what is appropriate for them to offer in programs and services. Thus, even the state legislature can call for a study to determine the mission of community colleges on one hand and on the other pass legislation which specifies a role for them that is decidedly not part of the traditional view of higher education.

It should be noted that in California technical institutes were not developed as separate institutions for the delivery of postsecondary vocational programs. As a result the comprehensive community colleges were charged with a broader educational role than to provide liberal arts and sciences. This broad mission has and may continue to create tension within the colleges because many of the functions of technical institutes, including provision of short-term, job training, were subsumed within the comprehensive mantle of the colleges. (112) Even though this may be imperfect, the broad mission of the comprehensive community colleges remains one of its strengths and has provided access to those who might not otherwise continue their education.

It was noted earlier that vocational programs are affected more directly by external forces than most traditional academic disciplines. This means that community college planning and decision-making processes for vocational programs must utilize information and expertise beyond in-house measures that may have been appropriate in the past. New modes of state and local district cooperation must evolve and means of obtaining private industry input and collaboration in the planning, delivery and assessment of vocational programs will have to be pursued more vigorously than ever.

☐ "education should turn out a pupil with something he [or she] knows well and something he [or she] can do well. This intimate union of practice and theory aids both. The intellect does not work in a vacuum...."

- Alfred North Whitehead

Table 3-1

CHRONOLOGY OF DEVELOPMENT OF CALIFORNIA COMMUNITY COLLEGES AND RELATED EVENTS
IMPACTING VOCATIONAL EDUCATION (VE) AS A FUNCTION IN SUCH INSTITUTIONS, 1900-1985

DECADE	Number of Community Colleges-Decade			Factors Affecting VE MISSION of Community Colleges	State & Federal Legislation and Emphasis	Events & Trends in California Impacting Community Colleges	Selected National Affairs and World Events
	# Established	Total	% Increase				
1900-1909	--	--	--	• About one in five eligible youths enrolled in high school	1907: First State legislation authorizing formation of "junior colleges" (JC)		• US population hits 76 million (1900) • 7 of 10 workers are in production jobs • San Francisco earth quake (1906)
1910-1919	15 Estimated JC Enrollment (State) 1910: 20 students	15	--	• Emphasis on transfer to senior colleges • Few VE programs part of JC curricula • Instruction offered is on high school sites	1917: Federal Smith-Hughes Act passes for Vocational Education (VE) to support such programs with funds	• First JC established in Fresno in 1910 • Less than 20% of JC programs in VE (Nationally)	• WW I (1914-1918) • US looms as a world political & economic power • Einstein issues "Theory of Relativity" (1915)
1920-1929	20 Estimated JC Enrollment (State) 1929: 25,000 students	35	133%	• JCs screen unqualified students for senior colleges • Close affiliation of JCs with high schools • JCs open access to higher education for poor students	1921: State legislation authorizes separate JC districts 1929: State increases JC apportionment	• Typical JC student is young and transfer oriented	• US population over 107 million (1920) • 10th million Ford car produced • Scopes (evolution) trial (1925) • 1st airmail flight NY to SF (1920) • Continuous casting of nonferrous metal perfected (1927)
1930-1939	5 Estimated JC Enrollment (State) 1937: 52,000 students	40	14%	• Comprehensive curricula emerge in JCs • VE programs grow in size and number in JCs • Student services emerge as part of JC mission	1930s: State reduces support per ADA for JCs 1935: Federal Social Security legislation passes 1936: George Deen Act appropriate federal funds for selected VE programs	• Trend toward separation of JCs from high school sites • Use of VE advisory committees emerges • About one-third of JC programs in VE (Nationally) • Average JC enrollment breaks over 1,000 students	• Great depression • Labor Union gains momentum (1933-36) • F. Roosevelt elected President (1932) • 1st woman elected to US Senate • TV invented (1933) • Queen Mary crossed Atlantic in record time (1936) • Germany invades Poland (1939)

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CHRONOLOGY CONTINUED

DECADE	Number of Community Colleges-Decade			Factors Affecting VE MISSION of Community Colleges	State & Federal Legislation and Emphasis	Events & Trends in California Impacting Community Colleges	Selected National Affairs and World Events
	# Established	Total	% Increase				
1940-1944 (War years)	5			• Number of older men (ex-GIs) and women attending JCs increases	1940s: Over a dozen federal Acts support use of public schools to provide job training to meet defense industry needs 1944: GI Bill passes 1946: George Barden Act passes to increase federal support for selected VE programs (Ag., Distrib. Ed., H.E., & USOE)	• Strong local funding and control is exercised by JCs • GIs return to college • Average JC reaches 2000 students	• US involved in WW II (1941-1945) • Atomic Bomb used at Hiroshima (1945) • "Baby Boom" begins • United Nations established (1945) • Massive labor strikes (1946) • NATO treaty signed by US (1949) • US population goes over 120 million (1940) and 150 million (1950)
	16	56	40%				
1945-1949 (Post war years)	11						
	Estimated JC Enrollment (State) 1947: 107,000 students						
1950-1959	8	64	14%	• Beginning of movement toward "community based mission" • Community service formally recognized as JC function • Extended day and technical programs expanded	1953: Health Education and Welfare made Cabinet level post 1958: National Defense Education Act provides stimulus to technical programs & give impetus to JCs role in offering such training	• Outreach programs for disadvantaged & adults initiated • Growth of JCs is encouraged by general public • JC funding is enrollment driven • JCs conduct research on curriculum development in engineering and scientific fields • Average JC enrollment passes 5,000 students	• Korean "police action" (1950-53) • Color TV introduced to US (1951) • Early school desegregation movement emerges • Alaska and Hawaii become 49th and 50th States (1959) • 5 of 10 workers are in production jobs • US population breaks 180 million (1960)
	Estimated JC Enrollment (State) 1959-60: 340,000 students						

CHRONOLOGY CONTINUED

DECADE	Number of Community Colleges-Decade			Factors Affecting VE MISSION of Community Colleges	State & Federal Legislation and Emphasis	Events & Trends in California Impacting Community Colleges	Selected National Affairs and World Events
	# Established	Total	% increase				
1960-1964	11 29	93	45%	• Master Plan includes JCs as segment of higher education system • Enrollment in VE reaches 13% of total CC students • Comprehensive "community college" (CC) concept replaces "JC" concept • Five year plan for community colleges is developed by CCC Chancellor's Office	1962: Federal Manpower and Training Act (MDTA) provides for new and improved skill training for under/unemployed adults 1963: Federal Education Act provides funds for VE high school and postsecondary programs -- changed focus of federal act from programs to people 1964: Civil Rights Act passes Congress to ban all discrimination based on race, color, creed, or sex in employment and education (with certain specified exceptions) 1964: Economic Opportunities Act passes to establish Job Corps, college work-study programs, and EOPS services 1968: Federal VEA passes Congress to support VE programs offered as part of approved State plan through sole state agency (In California SDE is specified as the sole state agency) 1968: CCs are made independent segment of higher education in California with its own Board of Governors (BOG)	• Separation from high school districts is achieved by CCs • Widespread construction of CCs—facility planning primary • Articulation with 4 year colleges and universities looms as issue • Move toward providing adult and vocational education programs • CCs seen as way to solve social and economic problems • CCs play a large role in delivery of federal training and retraining programs • Average size of CCs "drops" below 4,000 students	• Kennedy elected • Peace Corps established • 1st US manned space flight (1962) • President Kennedy assassinated (1963) • Johnson is US Pres. • "Great Society" movement begins • Smoking linked to cancer • Environment rises as national issue • Viet Nam war grows in magnitude and national concern • Martin L. King and Robt. Kennedy slain (1968) • Nixon is President • US lands on moon (1969) • Supersonic commercial flights made available (1969) • 4 of 10 workers are in production jobs (1968) • US population reaches 200 million (1970)
1965-1969	18						

Estimated CC Enrollment (State)

1969: 355,000 students

CHRONOLOGY CONTINUED

DECADE	Number of Community Colleges-Decade # Established	 Total	 % Increase	Factors Affecting VE MISSION of Community Colleges	State & Federal Legislation and Emphasis	Events & Trends in California Impacting Community Colleges	Selected National Affairs and World Events
1970-1974	10			• Growth of part-time students and "personal interest" courses • Services for handicapped and other special needs population adopted • EOPS programs available at 46 CCs in State • Student representation on local boards and BOG gives direct student input in policy development • BOG philosophical statement encompasses, "career development, skill improvement, and JOB RETRAINING," along with other academic courses (1976) • Enrollment in VE courses exceeds 3 out of 4 CC students (1979)	1970s: CC Construction Act passes to help meet capital outlay needs in State 1973: Comprehensive Employment and Training Act passes Congress (job training and services for disadvantaged) 1976: Federal VEA passes Congress to continue funding VE in secondary and postsecondary schools (emphasis on serving special needs and disadvantaged populations) 1976: Statutes for programming and funding services for handicapped students adopted 1978: Proposition 13 passes in California (this slashed local property taxes 60%) 1979: State passes Energy Conservation Assistance Act to provide loans to CCs for capital improvement of energy systems	• Increase in noncredit offerings in CC • Nontraditional students swell ranks of CCs in State • Community outreach programs gain popularity—use of off-site facilities grows • Slow down in building of CC campuses in State - last new CC established in 1978 • Local bond and tax issues fail at same time that State capital outlay funds dry up • Deferred maintenance begins in many CCs • Rising concern about mission of CCs and conflict with adult education in VE • Average age of CC students is @ 30 • Average CC enrollment passes 10,000 students	• 18 year olds given vote (1970) • Kent State (1970) • Microchips invented (1971) • Watergate hearings • Energy crisis and environment pollution draws attention • Electronics industry takes off in Santa Clara County • Personal computers hit home market (mid-1970s) • Ford made President (1974) • Carter elected as President (1976) • 1st World Women's Conference (1977) • Three Mile Island nuclear plant accident (1978) • Iranian hostage crisis (1979-80) • US population over 220 million (1979)
	13	106*	14%				
1975-1979	5						

Estimated CC Enrollment (State)
1977-78: 1,322,000 students
1978-79: 1,160,000 students
1979-80: 1,248,000 students

* 103 community colleges were established as separate campuses. In addition, when the center for San Francisco CC is counted 106 is cited as the number of operational CCs in the State. When Los Angeles Community College District operated Metropolitan College, 107 was used as the number of CCs in the State. LA Metropolitan College is no longer in operation.

CHRONOLOGY CONTINUED

DECADE	Number of Community Colleges-Decade # Established Total % Increase	Factors Affecting MISSION of Community Colleges	State & Federal Legislation and Emphasis	Events & Trends in California Impacting Community Colleges	Selected National Affairs and World Events
1980-1985	NO NEW COMMUNITY COLLEGES ESTABLISHED AFTER 1970 Estimated CC Enrollment (State) 1980-81: 1,383,000 students 1981-82: 1,432,000 students 1982-83: 1,355,000 students 1983-84: 1,231,000 students	• BOG reaffirms open door policy for CCs • Faculty representative made a member of the BOG • BOG approves appointment of Director of VE for Chancellor's office • BOG adopts policies related to VE, including clause that CCs are "primary and presumptive" deliverer of VE in State • BOG VE policies distinguish between job training and VE • BOG reduces number of personal interest course offerings in CCs • Renewal of concern about program quality, college standards, and accountability • Issue of sole agency for VEA funds and coordination of planning and VE programs arises between SDE and CCs • BOG hires new State CC Chancellor • Joint Advisory Policy Council (CC/SDE) meetings suspended • General Fund expends less per VE ADA than other ADA	1981: State passes (SB84) Deferred Maintenance & Special Repairs Act to help fund needed CC facilities maintenance 1982: Legislature orders CCs to eliminate avocational, recreational, and personal development courses 1982: Job Training Partnership Act (JTPA) passes Congress to replace CETA - emphasis is placed on serving disadvantaged population with strong local control over programs through PICs 1983: State legislature approves CC student tuition for 1st time in California history 1983: Employment Training Panel (ETP) is formed to administer training funds for unemployed who exhaust unemployment insurance benefits 1984: State legislature calls for review of Masterplan for Higher Education in State and Mission of CCs 1984: Carl Perkins Act passes -- places emphasis on special needs populations, industry ties, and program improvement 1985: State passes GAINS (Workfare Bill, AB 2580) to provide job training for welfare recipients -- CC role specified	• Budget crisis hits CCs resulting in staff layoffs (most part-time & support staff) and program cutbacks • Buget for CCs shifts from local base to State - funding formula for CCs changes several times and contributes to unstable funding base for local planning • Peak CC enrollment in 1981-82 (1.4 million) is followed by steady enrollment decline to 1983-84 (1.2 million) • Faculty Senates for state and local CCs become a factor in curriculum and governance issues • Increase of CC involvement with industry through contract education • Emphasis and demand for short term job training and services for special needs populations in response to federal VEA and JTPA pose conflict with traditional CC VE programs • Average CC enrollment reaches 13,000 - range: @ 700 to over 27,000	• Reagan elected President (1980) • Massive Asian immigration hits California • Electronics industry matures with reduction of growth rates • Defense industries grow in activity • Emphasis on academics in state high schools reduces elective subjects & VE programs • Robotics and high tech given much attention, but job growth is projected in non-tech service occupations • Reagan re-elected President (1984) • "New Federalism" emphasizes larger role for states and local agencies • About 3 of 10 workers engaged in production jobs (1985) • Size of National debt and trade deficit rises as major economic and political concern (1985) • US population passes 230 million in 1983

Compiled by: Carvell Education Management Planning, Inc.

Part IV

SUMMARY OF MAJOR FINDINGS RELATED TO AREAS OF INVESTIGATION

In addition to identifying the factors that affect the nature and operation of vocational programs in California community colleges, a body of facts was compiled during the study which helped to describe objectively the status of vocational education in California community colleges (CCC). These findings are highlighted in Part I and are used as the rationale to support the study recommendations which appear in Part V of this report.

The key findings presented here are related to the major areas of inquiry included in the scope of the study. Unless noted otherwise, the base period for the findings is 1983-84, which was the program year defined for the study. A major source of information was the COCCC tapes for VEA and course inventory data. (62,73,75,76)

Students in Vocational Programs

1. STUDENTS SERVED BY CCC VOCATIONAL PROGRAMS ARE A DIVERSE AND BIMODAL POPULATION

    - About 1/3 of the students in vocational programs attended only during the day; they tended to be younger, attend full-time, carry more units per school term, and likely to prepare for new careers or want to continue training beyond community college. Another smaller segment of day students were older, re-entry women. During the day, 66% of the WSCH in vocational course was generated.

    - About 1/2 of the students enrolled in vocational programs attended in the evening only; they tended to be older, employed full-time, more independent economically (30% indicated they were buying a home), and attend part-time taking fewer units per school term. Many of these are continuing students who had completed 60 units or more. Indications are this group was not concerned about completing a defined program but had goals related to career improvement, change, or upgrading. (139)

    - About 1/6 of the students enrolled in vocational programs attended full-time.

    - Other socioeconomic characteristics of CCC students are shown on Table 4-1 and explained further in Appendix D. (72)

2. THERE HAS BEEN A DRAMATIC SHIFT IN STUDENT DEMAND FOR VOCATIONAL PROGRAMS

    - In 1965 about 13 percent of total CCC enrollments were in vocationally related programs, by 1983 this had grown to over 75 percent. In 1983-84, 909.8 thousand students were enrolled in vocational education courses. See Figure 4-A for the percent of CCC students enrolled in one or more vocational courses in the State between 1977 and 1983-84.

Table 4-1

COMPARISON BY SOCIOECONOMIC CHARACTERISTICS OF STUDENTS BY EDUCATIONAL GOAL

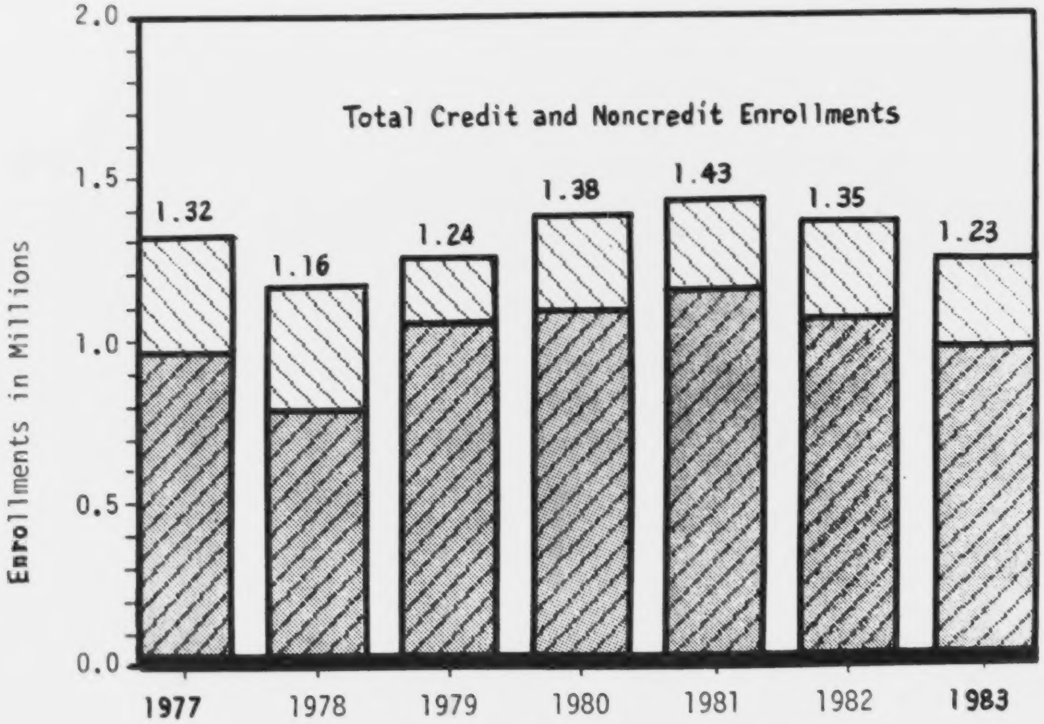
Characteristic	Educational Goal Expressed by Student Vocational	Transfer	Basic Skills
1. Proportion of Survey Sample	About 1 of 2	About 1 of 3	About 1 of 14
2. Ethnic Mix to CCC Ethnic Mix	Similar	Similar	More Asian
3. Ratio of Men to Women	More Women	More Women	More Women
4. Age of Students	Older	Younger	Older
5. Married	About 1 of 2	1 of 5	Over 1 of 2
6. Working Pattern	1 of 2 Worked Full-time	Varied	Full-time or Not Employed
7. Institution of Prior Attendance--High School	Under 1 of 2	Over 1 of 2	Under 1 of 2
8. GPA Self-defined:B or Better	About 1 of 2	About 1 of 2	About 1 of 4
9. Attend in:Day Only	About 1 of 3	Over 1 of 2	About 4 of 10
Evening Only	Nearly 1 of 2	Nearly 1 of 4	Nearly 1 of 2
10. In School:Enrolled:Full-time	About 1 of 6	About 2 of 5	About 1 of 16
Part-time	About 3 of 4	About 1 of 2	Nearly 6 of 10
Noncredit	About 1 of 12	About 1 of 33	Over 1 of 3
11. In School:Units Compl. 60+	Over 1 of 3	Under 1 of 3	About 1 of 3
None	1 of 7	1 of 12	1 of 3
12. Independent, Self-supporting	2 of 3	Under 1 of 2	Over 6 of 10
13. Living Arrangement:Parent/Rel.	About 3 of 10	Over 1 of 2	About 3 of 10
Rent	About 4 of 10	About 1 of 3	About 1 of 2
Own/Buying	About 3 of 10	About 1 Of 7	Under 1 of 4
14. Income for 1983: Over $24,000	1 of 4	1 of 8	1 of 6
Over $12,000	About 1 of 2	Under 4 of 10	Under 4 of 10
Less $ 6,000	1 of 3	Over 1 of 2	Over 4 of 10
Less $ 3,000	Under 1 of 4	4 of 10	3 of 10
15. Paid for Childcare to Attend	About 1 of 8	Under 1 of 10	Under 1 of 10

Note: Information on this chart is limited to data from students expressing vocational, transfer or basic skills goals; does not include those with other educational goals. (16% of 7094 respondents had various other goals.)

Source: Compiled by Carvell Education Management Planning Inc. from computer data in the Chancellor's Office, California Community Colleges, Analytical Studies Unit, from the Student Socioeconomic Characteristics: Spring 1984 study by Field Research Corporation (December 1984), May 1985.

Figure 4-A

PROPORTION OF TOTAL COMMUNITY COLLEGE ENROLLMENTS TAKING ONE OR MORE VOCATIONAL COURSES, 1977 TO 1983



▨ Percent of total students who enroll in one or more vocational course in community college*

1977: 67.4%
1978: 74.3%
1979: 83.9%
1980: 78.6%
1981: 80.2%
1982: 78.3%
1983: 79.0%

* Does not include enrollments in job **training** programs not generating ADA.

Sources: **Total** Community College Enrollments, Stats and Facts, COCCC, **1984**.
Unduplicated **Vocational** Education Enrollments, VEDS **reports**, **years cited**.

- Two thirds (2/3) of the students enrolled in vocational education were taking courses beyond the pre-vocational or beginning level.

- In 1983-84, a survey of CCC students indicated that about half had a vocational goal as a primary reason for attending school.

3. COMMUNITY COLLEGE VOCATIONAL PROGRAMS HAVE GENERALLY PROVIDED ACCESS FOR WOMEN AND MINORITY GROUPS AND OTHER SPECIAL POPULATIONS

- Over half (53%) of vocational program enrollments were women, but half of the 30 largest vocational programs had equity imbalanced enrollments -- 7 were imbalanced for women, 8 for men. See Figure 4-B for a graphic picture of the equity imbalanced programs noted here.

- A review of earlier sex equity studies indicates that in 9 of the 15 imbalanced programs cited above, there had been an improvement of at least 5 percent during the past five years and women appear to have met more success in entering male dominant vocational programs than have men in entering female dominant ones. (43)

- Apprenticeship programs were less balanced for equity than other vocational programs offered by CCCs. See Appendix E for details on the enrollment patterns in apprenticeship programs in 1983-84. Vocational program enrollments are analyzed based on ethnicity in Appendix F.

- The profile of educational goals for ethnic minorities attending CCCs was about the same as those among White students, with the exception of Asian students who were likely to have goals related to basic education or tranfer.

- About 18 percent of the students enrolled in vocational programs were identified as disadvantaged, 3 percent were limited Engish speaking, and less than 2 percent were physically handicapped. See Appendix F for a description of enrollment rates of special populations in vocational programs.

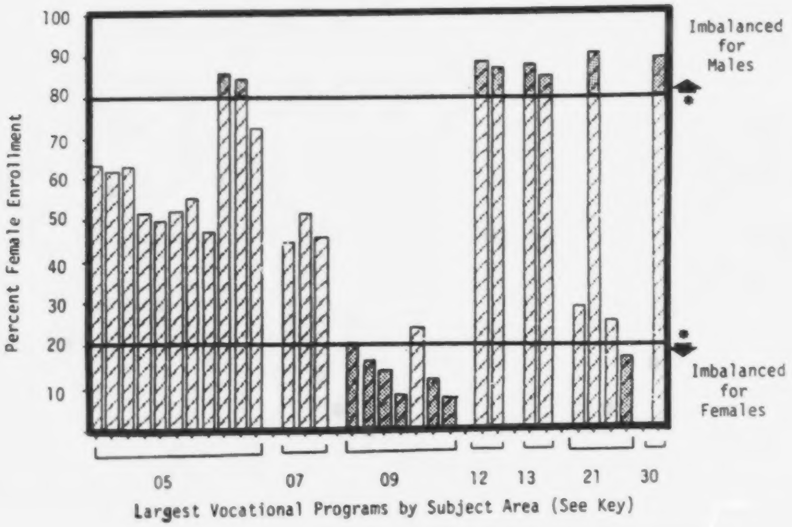
- There was no major difference in the completion rate of various ethnic or special population groups enrolled in the advanced (Part A) vocational programs in community colleges. Generally, the ratio of enrollment to completion was 4 to 1 in these programs. However, completion rates for special populations in apprenticeship programs were lower than for other students in the same programs. See Appendices E and F.

4. CCC ADMINISTRATORS OF VOCATIONAL EDUCATION ANTICIPATE THAT ENROLLMENT IN VOCATIONAL PROGRAMS WILL CONTINUE TO INCREASE DURING THE NEXT HALF DECADE

A written survey of CCC vocational administrators representing 74 percent of the community college districts in the state and 87 percent of the ADA generated in vocational programs was conducted as part of this study. See Appendix G for a summary of the survey results.

Figure 4-B

PERCENT OF FEMALE ENROLLMENTS IN THE 30 LARGEST COMMUNITY COLLEGE VOCATIONAL PROGRAMS SHOWING EQUITY IMBALANCE*



KEY for Program Identification:

● 05 Business/Management (left to right)

	0501.0	Business/Commerce
	0502.0	Accounting
	0504.0	Banking & Finance
	0506.0	Business Management
	0506.3	Management Development
	0509.0	Marketing/Distributing
	0509.5	Merchandising
	0511.0	Real Estate
●	0514.0	Secretarial Science
●	0514.5	Clerical
	0514.6	Typing

● 07 Computer/Data Processing (left to right)

	0701.0	Computer/Information
	0703.0	Data Processing
	0704.0	Computer Programming

● 09 Technical Programs (left to right)

●	0934.0	Electricity/Electronics
●	0934.3	Industrial Electronics
●	0948.0	Auto Technology
●	0948.1	Auto Mechanics
	0953.0	Drafting Technology
●	0956.0	Machine Tool
●	0956.5	Welding/Cutting

● 12 Health Occupations (left to right)

●	1203.1	Nursing, RN
●	1203.2	Nursing, LVN

● 13 Home Economics/CHE (left to right)

●	1305.0	Family/Child Development
●	1305.1	Child Development

● 21 Public Services (left to right)

	2105.0	Administration of Justice
●	2107.1	Early Childhood Ed.
	2133.0	Fire Control
●	2133.1	Fire & Safety

● 3007.0 Cosmetology

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*NOTE: Imbalanced programs are defined as those with 80% or more enrollments of one sex. In 1983-84, 8 of the largest programs were imbalanced for females and 7 were imbalanced for males. (See shaded programs on Bar Graph and Key for names of the programs.)

Large programs are those with 5,000 or more enrollments in State. These 30 vocational programs represent about two-thirds of the total Vocational Education enrollments in the State community colleges.

- Based on survey results, enrollment trends in vocational programs through 1990 will be characterized by:
  - Increased total enrollments (66% of respondents)
  - Increased evening enrollments (73%)
  - Increased enrollment of disadvantaged students (69%)
  - Increased enrollment of LEP students (63%)
  - Increased enrollment of students over age 24 (64%)
  - Increased enrollment of students with goals related to career improvement (70%).

Vocational Programs

5. DIFFERENTIATING BETWEEN VOCATIONAL EDUCATION AND JOB TRAINING IN PRACTICE AND COMMUNICATING THE DIFFERENCE TO NECESSARY PUBLICS IS A CONTINUING PROBLEM

   - Athough the Board of Governors (BOG) defined the difference between vocational education and job training in their adoption of vocational education policies in 1984, the difference is not understood by many CCC faculty, employers, legislators, or general public. This lack of understanding contributes to confusion about the role of CCs in providing "noncollege level" instruction.

6. A MAJOR PORTION OF CCC VOCATIONAL EDUCATION ENROLLMENTS AND STUDENT CONTACT HOURS ARE CONCENTRATED IN THREE MAJOR PROGRAM AREAS

   - CCC vocational programs are organized into 314 separate areas of instruction in 16 major disciplines defined as Taxonomy of Programs (TOPs). Table 4-2 shows that 909.8 thousand stuents enrolled in vocational education courses which generated 138.0 million hours in 1983-84. See Appendix H for a summary of student enrollments and contact hours generated in each of the 314 vocational TOPs in 1983-84.

   - Vocational programs account for about 35 percent of all student instructional contact hours generated annually in community colleges. The average Weekly Student Contact Hours (WSCH) generated in vocational programs is 4.3 compared to 9.5 WSCH over the year in all CCC programs. In part this lower contact hour figure was because vocational students, especially full-time, day students, also take courses outside of vocational education and that upgrading vocational students may be enrolled for a single class for a single semester.

   - 36 percent of all vocational program enrollments were in business related programs, 18 percent in technical programs, and 14 percent in computer related courses. See Figure 4-C for the distribution of enrollments by major vocational program area.

     - The three largest vocational program areas in CCCs accounted for about 2/3 of all vocational enrollments.

     - The three largest vocational program areas also accounted for about 3/5 of all vocational contact hours of instruction used to generate

Table 4-2

SUMMARY OF VOCATIONAL EDUCATION ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	TITLE	ENROLLMENT PART A*	ENROLLMENT PART B*	ENROLLMENT PART F*	ENROLLMENT TOTAL	VOCATIONAL ASCH*	DETAIL DAILY*	POSITIVE ATTENDANCE*	TOTAL ALL HOURS	HOURS/ 525*
01	AGRICULTURE	18,545	4,284	13	22,842	2,876,955	33,236	648,937	3,559,128	6,779
02	ARCHITECTURE	5,298	1,028	--	6,326	1,417,061	2,744	14,572	1,434,377	2,732
05	BUSINESS/MGMT	221,027	107,045	134	328,206	32,258,965	597,657	5,994,655	38,851,277	74,002
06	COMMUNICATIONS	3,443	2,272	--	5,715	2,291,203	7,814	95,483	2,394,500	4,561
07	COMPUTER/DP	76,139	48,047	318 (1)	124,504	15,005,238	404,310	1,290,558	16,700,106	31,810
08	SPECIAL EDUC.	2,288	1,258	--	3,546	499,191	9,603	32,007	540,801	1,030
09	MANUF./TECH ED.	122,720	27,062	12,093	161,875	25,766,516	719,834	4,603,933	31,090,283	59,220
10	ARTS-VOC. ED.	7,839	4,904	1	12,744	2,640,259	15,321	265,220	2,920,800	5,563
12	HEALTH OCCUP.	41,772	6,934	113	48,819	10,857,923	358,321	2,940,019	14,156,263	26,964
13	HOME ECON/CHE	30,938	56,084	82	87,104	5,229,177	324,051	2,116,695	7,669,923	14,609
14	LEGAL ASSIST.	2,582	782	6	3,370	410,373	792	6,504	417,669	796
16	LIBRARY ASSIST.	421	190	11	622	33,025	--	2,622	35,647	68
19	GEOLOGY	140	45	--	185	14,079	--	360	14,439	27
21	PUBLIC SERVICES	71,718	12,547	648	84,913	6,851,073	215,727	5,216,469	12,283,269	23,397
30	PERSONAL SERV.	16,756	1,847	413	19,016	3,487,878	255,930	2,007,081	5,750,889	10,954
49	VOC. ED. ESL	1	--	--	1	144,658	--	439	145,097	276
	SUBTOTAL	621,627	274,329	13,832	909,788	109,783,574	2,945,340	25,235,554	137,964,468	262,789
99	OTHER, VOC. ED.	35,363	25,836	2,100	63,299	1,362,407	308	278,189	1,640,904	3,126
	TOTAL VOC. ED.	656,990	300,165	15,932	973,087	111,145,981	2,945,648	25,513,743	139,605,372	265,915

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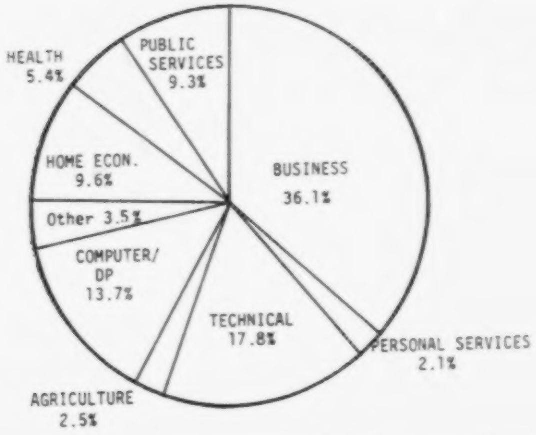
* See accompanying definition sheet.

(1) Data on apprenticeship on 6/13/85 tape differs from subsequent tapes but total all apprenticeship not significantly different.

Source: Chancellor's Office, California Community Colleges, Data Tapes for 6/13/85 VEA Enrollment; Course Classification Inventory File, 5/20/85; Compiled by Carvell Education Management Planning, Inc., 7/85.

Figure 4-C

PERCENT OF ENROLLMENTS BY MAJOR
VOCATIONAL PROGRAM, 1983-84



COMPARISON OF TOTAL ANNUAL ENROLLMENT AND STUDENT CONTACT HOURS BY MAJOR VOCATIONAL PROGRAM AREA BY PERCENT, 1983-84

Major Program Area	Annual Enrollment	Annual Hours
BUSINESS OCCUPATIONS	36.1 %	28.2 %
TECHNICAL OCCUPATIONS	17.8	22.5
COMPUTER/DP OCCUPATIONS	13.7	12.1
HOME ECONOMICS/CONSUMER RELATED	9.6	5.6
PUBLIC SERVICE OCCUPATIONS	9.3	8.9
HEALTH OCCUPATIONS	5.4	10.2
AGRICULTURE RELATED OCCUPATIONS	2.5	2.6
PERSONAL SERVICE OCCUPATIONS	2.1	4.2
OTHER	3.5	5.7
TOTAL ALL VOCATIONAL PROGRAMS	100.0 %	100.0 %

Source: VEA and Course Activity Computer tapes for 1983-84 provided by the COCCC.

ADA (average daily attendance). See Figure 4-D for a chart of total instructional hours generated by each of the major vocational program TOPS. Data in Figure 4-D show that the vast portion of instructional hours in vocational programs are generated by traditional student contact hours rather than by positive attendance or daily attendance modes of instruction.

- Of the 12 largest vocational TOPS in terms of instructional hours generated annually, 9 were in the three major program areas noted above in item 6. See Figure 4-E for a list of these TOPs at the five digit level.

- Nursing--RN was the largest program in the health occupations area. Health occupations programs attracted 5.4 percent of the total vocational enrollment (Figure 4-C), but generated about 10 percent of the total WSCH in all CCC vocational programs.

7. THERE IS A DISPARITY IN COCCC RECORDS BETWEEN THE NUMBER OF STATE APPROVED PROGRAMS (TOPs) AND THE ACTUAL NUMBER BEING OFFERED BY LOCAL DISTRICTS

- State program approval lists did not match local program offerings. This was not limited to vocational programs. Figure 4-F illustrates the disparity between state records and reported course activity by local districts in the 12 largest vocational programs.

- Over time, program titles, TOPs code numbers, and catalog descriptions evolved, were misfiled or changed due to clerical error. In addition, local districts combined courses from already approved programs to form new programs but may have failed to request new program approval from the State.

8. CCCs ARE A MAJOR MECHANISM FOR PROVIDING A WIDE RANGE OF LOCALLY NEEDED EMPLOYMENT TRAINING PROGRAMS

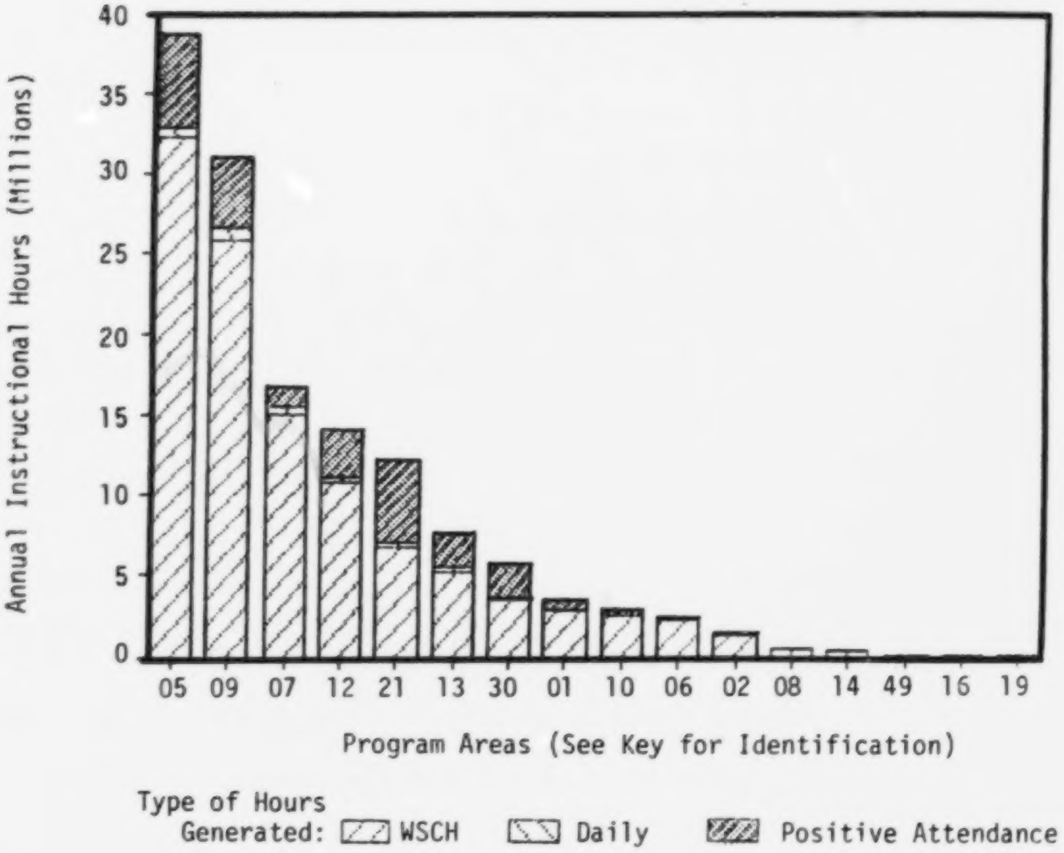
- Based on data provided by the COCCC Vocational Education Unit, during the past three years (as of Fall, 1985) the COCCC monitored the following types of projects: (68)

  . 54 CCCs were involved with JTPA contracts
  . 28 CCCs were involved in 64 ETP projects (Employment Training Panel)
  . 39 CCCs involved with EBT (Employer Based Training) projects and another 30 projects were approved for 21 CCs in 1986
  . 30 CCCs were involved in 42 AB 3938 (inservice education) projects for 1985-86
  . 21 CCCs were designated providers of adult education programs for their respective service areas
  . 47 CCCs offered instruction for apprenticeship.

  . About 50 CCC districts were involved with contractual education for local employers.

Figure 4-D

NUMBER OF INSTRUCTIONAL HOURS GENERATED BY STUDENTS IN EACH MAJOR VOCATIONAL PROGRAM AREA, 1983-84

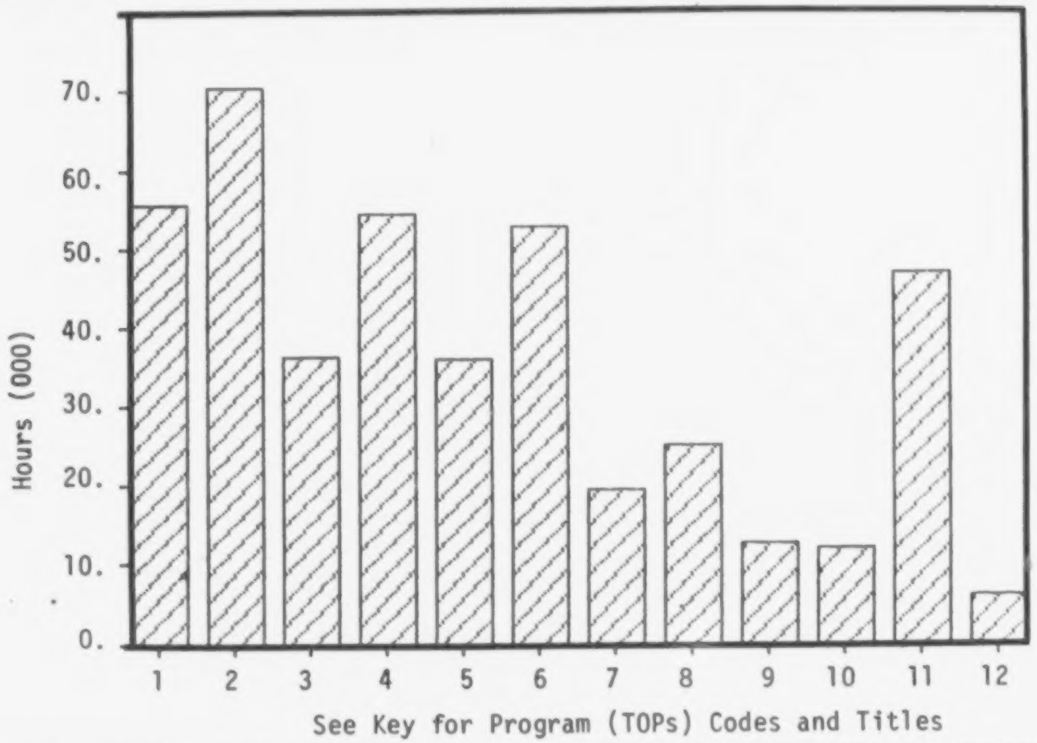


PROGRAM AREA KEY:

01	Agriculture/Natural Resources
02	Architecture/Enrivonmental Science
05	Business/Management
06	Communications
07	Computer Sci/Data Processing
08	Special Education Technology
09	Engineering/Electronics/Mfg. Tech
10	Vocational Education--Arts
12	Health Occupations
13	Home Economics/Consumer Education
14	Legal Assisting
16	Library Assisting
19	Geologic Technician
21	Public Services/Safety
30	Personal Services
49	Vocational Ed--ESL

Figure 4-E

TWELVE LARGEST VOCATIONAL PROGRAMS IN TERMS
OF INSTRUCTIONAL HOURS GENERATED ANNUALLY, 1983-84



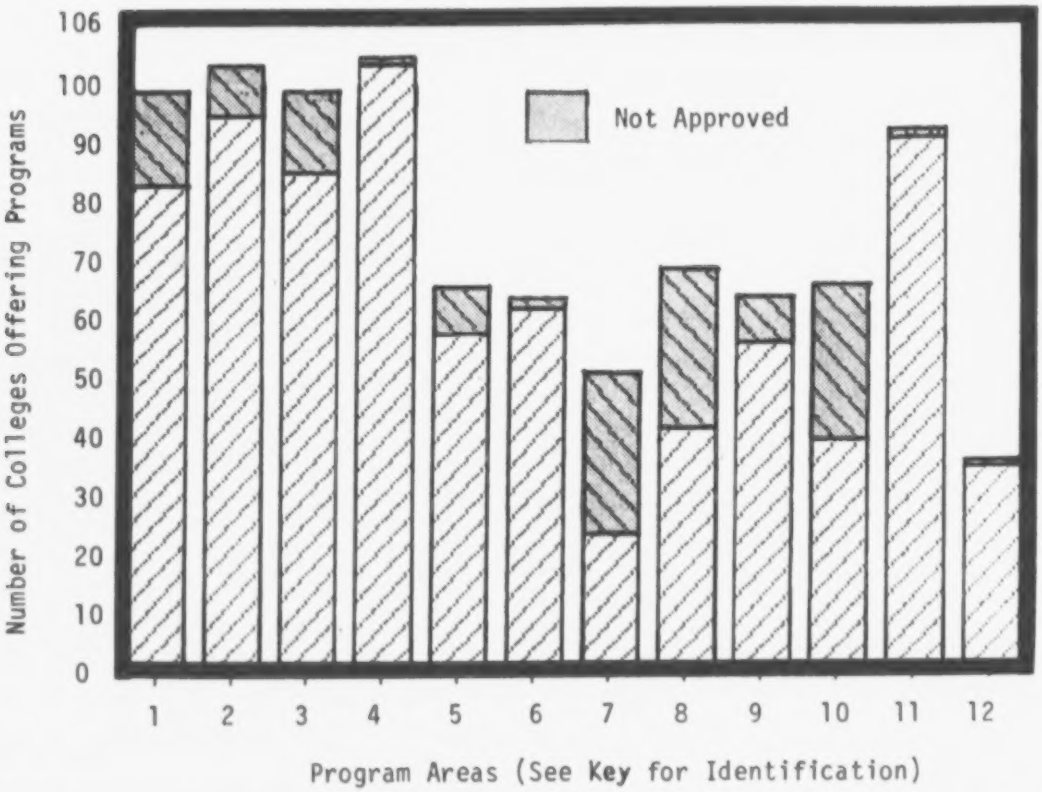
KEY:

1	0501.0	Business and Commerce, General
2	0502.0	Accounting
3	0506.0	Business Management
4	0514.0	Secretarial Studies
5	0701.0	Computer & Information Sciences
6	0703.0	Data Processing
7	0704.0	Computer Programming
8	0934.0	Electricity & Electronic Technology
9	0948.1	Auto Mechanic
10	1203.1	Nursing, RN
11	2105.0	Administration of Justice
12	3007.0	Cosmetology

Source: VEA tapes for 1983-84, provided by COCCC.

Figure 4-F

NUMBER OF COMMUNITY COLLEGES OFFERING VOCATIONAL PROGRAMS COMPARED TO THE NUMBER WITH STATE PROGRAM APPROVAL, 12 LARGEST PROGRAMS, 1983-84



KEY:

1.	0501.0	Business & Commerce, General
2.	0502.0	Accounting
3.	0506.0	Business Management
4.	0514.0	Secretarial
5.	0701.0	Computer & Information Sciences
6.	0703.0	Data Processing
7.	0704.0	Computer Programming
8.	0934.0	Electricity & Electronics Technology
9.	0948.1	Auto Mechanic
10.	1203.1	Nursing, RN
11.	2105.0	Administration of Justice
12.	3007.0	Cosmetology

Program Delivery Patterns

9. VOCATIONAL EDUCATION IN CCCs IS DELIVERED WITHIN THE CONTEXT OF COMPREHENSIVE COLLEGES

- California does not have public postsecondary technical institutes similar to those found in many other states. Within the individual 106 comprehensive community colleges great variety exists and course activity ranged from no vocational courses to over 70 percent of all course activity. (61) The state average among the CCCs for vocational courses was about 35 percent of all course activity hours.

- Between 1980-81 and 1983-84, the number of vocational courses offered in CCCs increased by 25.7 percent to 59,471 courses, while the number of student contact hours generated in these courses actually dropped by 30.6 percent. For comparison during the same period, in Liberal Arts & Sciences (BA degree oriented), the number of courses increased by 13.4 percent while student contact hours dropped by 33.3 percent. The latter courses maintained about 52 percent of the total workload during the two comparative periods and vocational courses increased from 35 to 36 percent of the total workload in community colleges.(61)

- The reasons for the increase in the number of courses at the same time that student contact hours were decreasing might be attributed to a combination of factors such as 1) an increase in the number of new courses that were started to meet new student demand while decreasing the number of sections in existing courses, and/or 2) a decrease in average class size as indicated by the President's Study. (23)

10. CCC OCCUPATIONAL ADMINISTRATORS RESPONSIBLE FOR LEADERSHIP AT THE LOCAL LEVEL ANTICIPATE CHANGES IN THE MODE OF DELIVERING VOCATIONAL PROGRAMS DURING THE NEXT FIVE YEARS

- Based on a survey of local occupational administrators, the modes of vocational program delivery in the coming five years would be characterized by: (See Appendix G.)

  - Increased use of nontraditional time schedules (80% of respondents)
  - More use of short-term, intensive job training programs (87%)
  - Greater use of contract instruction with employers (72%)
  - Expanded use of computer assisted instruction (87%)
  - Stronger application of competency based instruction (87%).

Program Planning

11. PROGRAM PLANNING AT THE LOCAL LEVEL DEPENDS MAINLY ON COOPERATIVE EFFORTS BY GROUPS OF CCC OCCUPATIONAL ADMINISTRATORS AND DIRECT CONTACTS WITH LOCAL EMPLOYERS

- CCC occupational administrators currently meet and confer on a regularly scheduled basis to review plans and deal with planning issues that affect the colleges within a region.

- A number of exemplary efforts have been made by community college consortia or industry-education councils to coordinate area wide planning efforts. Among those identified during this study were:

  . Northeastern California Higher Education Council was formed to permit cooperative planning efforts among nine CCCs.

  . The California Community Colleges Occupational Education Coalition was formed in 1983 and pooled the leadership of a dozen CCC professional organizations representing administrators and faculty to deal with issues related to vocational education.

  . Vocational dean/administrator groups meet regularly in each of the major geographic areas of the State from San Diego to the northern region above Sacramento.

12. GREATER CONTACT BETWEEN CCCs AND PRIVATE SECTOR GROUPS IS BEING FOSTERED AND USED BY COMMUNITY COLLEGES

- Aside from the numerous advisory groups that are used throughout the State by CCCs, there are increasing examples of closer communications and cooperation between CCCs and industry groups for program planning and coordination of joint projects. Among the notable examples were:

  . The Southern California Aerospace Industry-Education Council which is an alliance between several major aerospace companies and some 28 CCCs in Orange, Los Angeles, and Ventura counties to develop curriculum materials, recruit students for manufacturing technology programs and assist in determining and meeting resource needs for program implementation. (41)

  . The Orange County Technology Exchange Center established to provide a direct link between employers of the area and all levels of vocational program providers to share planning information on a regional basis. (11)

  . PG&E Energy Partnership Project in which the company provided inservice for CCC instructors on state-of-the-art energy education to help community colleges practice energy conservation within their facilities. (88)

  . The Employment Training Forum of the Bay Area Council which is a regional effort in the greater San Francisco Bay area to link employers and CCC vocational educators in order to make training programs more responsive to existing and future needs in the area. (131)

13. CCC OCCUPATIONAL ADMINISTRATORS EXPECT CHANGES IN LOCAL PROGRAM PLANNING PROCEDURES AND STRONGER LINKAGE WITH THE PRIVATE SECTOR TO OCCUR IN THE FUTURE

- Based on a survey of CCC occupational administrators, the following key factors will be included in program planning procedures during the coming five years: (See Appendix G.)

- Greater use of employer surveys (75%)
- More use of subject matter advisory committees (63%)
- More use of advisory committees in program evaluation (64%)
- Greater joint planning/articulation with feeder schools (84%)
- Greater use of student follow-up studies (75%).

- Survey results indicate that CCC occupational administrators believe private sector involvement in vocational programs will include:
  - Greater use of industry personnel as instructors (67%)
  - Greater use of industry sites for training (83%)
  - Greater use of industry/labor for curriculum development (64%).

- Federal VEA regulations call for vocational programs to be linked to realistic employment opportunities. Job training programs, in particular, are tied to job openings. However, the degree to which local districts utilize labor market data for program planning varied widely and often little attention was given them because the data were considered unreliable and/or not matched to the service area of the CCC. (26,80,99)

14. THE COCCC LACKS A COHESIVE AND AGREED UPON STATEMENT OF THE PURPOSE AND ROLE OF VOCATIONAL EDUCATION IN COMMUNITY COLLEGES IN CALIFORNIA

- No policy exists for determining the balance of program offerings between vocational programs and job training.

- The lack of internal COCCC consensus about the role of vocational education in community colleges has had an impact on:
  - Defining the purpose and function of COCCC operations and staff responsiblities in relation to compliance, leadership, planning, and priorities for responding to district needs.
  - Determining information requirements from the field in terms of needs assessment, program planning, program coordination, public information, setting priorities for special and developmental projects, and meeting the expectations of the legislature or local community colleges. (7,8,52,117)

15. STATE LEVEL PLANNING IS HAMPERED BY AN INADEQUATE NEEDS ASSESSMENT AND A MANAGEMENT INFORMATION SYSTEM THAT DOES NOT PROVIDE DATA IN A TIMELY MANNER OR USEFUL FORMAT

- Local CCC district plans for vocational education were compliance documents and did not provide a picture of local activities outside of VEA programs. Therefore, they did not provide a composite or complete picture of statewide needs or vocational plans that could be used by the State to develop its own priorities.

- Information reported to the COCCC by the field was often out of phase or synchronization with the realities of district practice. Inaccuracies or gaps of information existed related to course offerings, program enrollments, student outcomes, or program activity not supported by VEA.

- The COCCC formed 13 statewide advisory committees to help review vocational programs and services, assist in the assessment of needs and program evaluation, and identify statewide issues to be addressed. The results and effectiveness of these efforts have not been compiled or assessed.

- Faculty staffing reports did not identify vocational intructors separately from other faculty so that their workloads, characteristics, or needs could be determined. Analysis of the staffing report for 1983-84 by districts with greater than average vocational contact hours was made in an effort to discern differences in vocational and nonvocational faculty. (46) See Appendix I for an analysis of the current COCCC staffing report.

  - Little difference between full-time vocational instructors and other full-time faculty can be determined from current staffing reports. If there is no difference in ages among the two groups, over 1/3 of the CCC districts have 40 percent or more of their full-time vocational instructors over age 50.

  - Half the districts employed over 60 percent of their faculty on a part-time basis, but there was no evidence from the staffing report that a higher portion of vocational instructors were part-time than in other disciplines even though it was generally believed in the field and the COCCC that vocational education employed more part-time staff. This needs further study.

  - About half (52%) of the CCC districts with high levels of vocational programs employed ethnic minorities for between 10 and 20 percent of their full-time faculty, but only 6 percent of the CC districts employed ethnic minorities for more than 20 percent of the full-time faculty.

  - Less than half all districts employed women for at least 35 percent of their full-time faculty. Even though 3/4 of the districts hired women for 35 percent or more of their part-time faculty, only 11 percent had women for more than 50 percent of their part-time faculty.

Program Funding

16. CCCs, IN GENERAL, AND VOCATIONAL PROGRAMS IN PARTICULAR, HAVE BEEN AFFECTED BY DECLINING LEVELS OF FUNDING WHICH HAVE NOT KEPT PACE WITH INFLATION, AND INCONSISTENT FUNDING FORMULAS HAVE IMPEDED RATIONAL PLANNING AND PROVIDED LITTLE FLEXIBILITY

    - The funding crisis of the past five years resulted in practices and decisions that threatened the quality of vocational programs: (101)

- Needed maintenance for facilities and equipment was deferred
- Needed instructional equipment purchases were postponed
- Faculty vacancies were not filled and some faculty was released, but the brunt of this was borne by part-time staff
- Inservice and professional development was curtailed. Some of this has been off-set by AB 3938, but this is not a long-term solution for keeping vocational staff current in their respective fields.

- In 1983-84, the total state CCC expenditure for vocational education was $586,232,964. Federal VEA funds for that year were $ 23,508,427. (53,57)

  - Total VEA funds represented less than 4 percent of total vocational education expenditures in the state that year. The 70 districts combined spent 97.3 percent of their VEA allocation.

  - Analysis of VEA expenditures in 18 randomly selected districts indicated that over 70 percent of the subpart II instructional funds were spent on equipment.

- As a result of two studies of equipment and facilities needs, the state legislature appropriated funds for CCC instructional equipment replacement and renewal; however, these funds were not specifically targeted for vocational programs and were not made an ongoing budget line item to assure continued upgrading and replacement. (31,38)

- Analysis of total general fund expenditures reported by local districts indicated that the average local expenditure from the state general fund per ADA in vocational education ($1,209) was less than the average for all instructional program ADA ($1,250). (50) See Figure 4-G for a comparison of state general fund expenditures reported for each major vocational program area in 1983-84.

17. AS VEA FUNDS DECLINED (1981-1983), THERE HAS BEEN AN INCREASED RELIANCE AT THE LOCAL LEVEL UPON FUNDS FROM OTHER FEDERAL AND STATE JOB TRAINING PROGRAMS OR UPON PRIVATE CONTRACTUAL EDUCATION

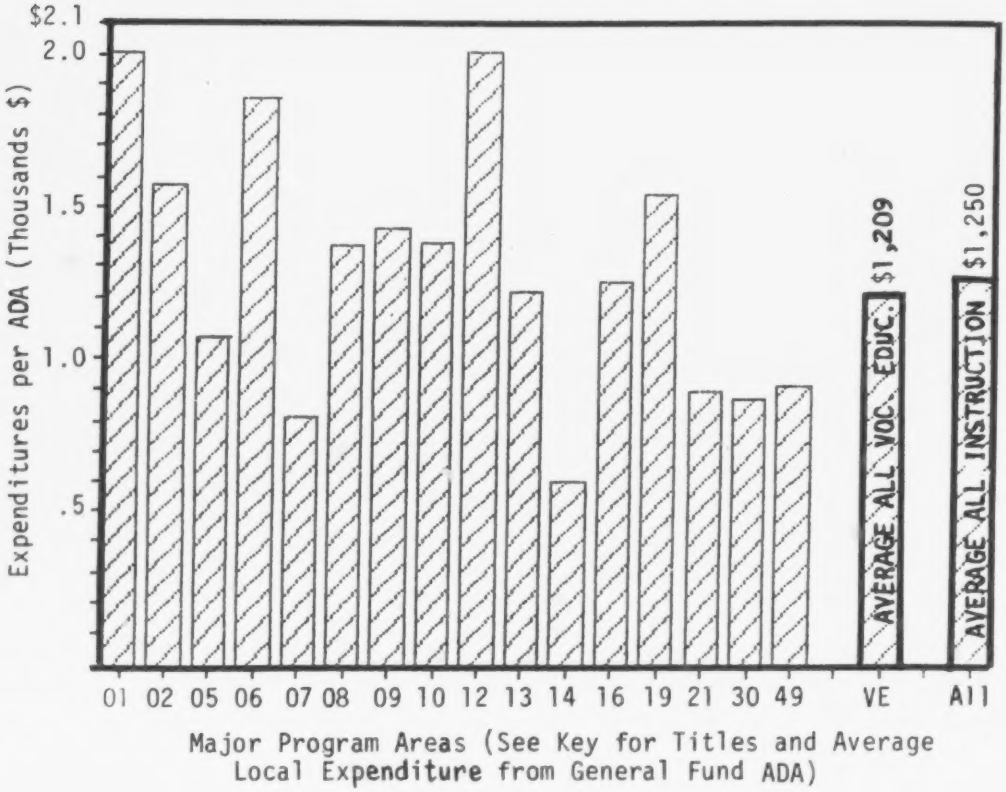
- JTPA, ETP, EBT and other state and federal training programs were designed to address the needs of disadvantaged, displaced workers, and other unemployed and special needs populations. (147) Many of these job training projects required competitive bids and performance based contracts. However, the availablity of alternative funding sources to augment diminished VEA and state funds was attractive despite the fact that such training might not have been designed for typical college level students. See Table 4-3. (68)

- In addition to state or federal job training projects, community colleges began to use private foundations and to work with the private sector to provide training through contractual education. The extent of this practice and its ramifications are being studied.

- Occupational administrators indicated that alternative sources of

Figure 4-G

COMPARISON OF GENERAL FUND EXPENDITURES ON VOCATIONAL PROGRAMS BY LOCAL DISTRICTS IN RELATION TO EXPENDITURES FOR ALL INSTRUCTIONAL PROGRAMS, 1983-84



KEY:		Average General Fund Expenditure per ADA (Operating) by Local Districts
01	Agriculture/Natural Resources	$ 2009
02	Architecture/Enrivonmental Science	1571
05	Business/Management	1063
06	Communications	1853
07	Computer Sci/Data Processing	814
08	Special Education Technology	1372
09	Engineering/Electronics/Mfg. Tech	1428
10	Vocational Education--Arts	1373
12	Health Occupations	2006
13	Home Economics/Consumer Education	1214
14	Legal Assisting	604
16	Library Assisting	1249
19	Geologic Technician	1542
21	Public Services/Safety	896
30	Personal Services	871
49	Vocational Ed--ESL	912
VE	Average Vocational Education Instructional Program	$ 1209
CCC	Average All CCC Instructional Programs	$ 1250

Source: California Community Colleges Fiscal Abstract, 1983-84 and California Community Colleges Course Activity Tapes, 1983-84.

Table 4-2

SOURCE OF FUNDS FOR OCCUPATIONALLY RELATED PROGRAMS OFFERED BY CALIFORNIA COMMUNITY COLLEGES

(In Millions of Dollars)

Major Funding Source	Fiscal Years 1985-86	1984-85	1983-84	1982-83	1981-82
Federal VEA Funds	$ 28.1[1]	$ 27.5[1]	$ 22.9	$ 20.4	$ 26.1
Non-federal Funds	dna	dna	563.4	474.0	482.8
Employment Based Training (EBT) By Type:	$ 8.4[2]	$ 6.9[2]	$ 6.3	$ 3.4	--
Private Sector	2.3	2.1	1.6	0.2	
Local Colleges	1.8	1.8	1.6	--	--
Other (JTPA, CWETA, etc.)	0.3	0.3	0.3	0.4	--
State ADA, VEA, etc.[3]	3.9	2.7	2.8	2.8	--
Employment Training Panel (ETP)	dna	$ 19.8 Over 2 fiscal years			
Inservice Training Funds (AB 3938)	$ 1.9	$ 0.9 (0.5 yet to be allocated)	Not Available Before 1984		
Job Training Partnership Act (JTPA) By Type:					
5% Funds	dna	$ 0.6	Not Available Before 1984		
8% Funds 30%	$ 0.6	0.6			
8% Funds 50%	dna	2.0			
Equipment Replacement Funds[4] (State Legislature)	$ 26.0		Not Available Before 1985		
Local District Training Contracts (Contractual Education, etc.)	Not Required to Report Unless ADA is Generated				

Notes: dna = data not available

[1] VEA funds distributed through SDE to Community Colleges. Amount is negotiated each year.

[2] Dollar amounts recommended for funding of projects.

[3] These amounts included in federal and non-federal funds shown above.

[4] Allocated by legislature for instructional equipment, but not limited to vocational education expenditures.

Source: COCCC, Vocational Education Unit, Vocational & Employment Training.

funding would increase in importance during the next five years. Survey results indicated they expect: (See Appendix G.)

- Increased use of private sector resources and funds (74%)
- Greater use of contractual education with private firms (72%)
- Greater use of foundations to generate and accept funds (75%).

- Use of performance based contracts with JTPA was expected to continue in some districts as indicated by the fact that slightly more than half (52%) of the CCC occupational administrators expected the number of JTPA contracts in their district to increase during the next five years. Some districts were wary of expending funds for training when repayment from JTPA contracts was uncertain if placement goals could not be met.

Student Outcomes

18. ESTABLISHING CRITERIA AND PROCEDURES FOR IDENTIFYING VOCATIONAL STUDENTS FOR PURPOSES OF ACCOUNTABILITY AND FOR DETERMINING PROGRAM IMPACT IS A CONTINUING PROBLEM

- The Student Accountability Model (SAM) devised in the early 1970s was an attempt to identify vocational students and classify the level of their training; however, the system is complex and not uniformly understood or carried out by local districts. The interjection of short-term job training has complicated the matter of classifying vocational students. Unless a workable process is established, efforts are hampered to identify students to be followed up to determine program impacts and student outcomes. (42)

19. STATEWIDE STUDENT AND EMPLOYER FOLLOW UP TO DETERMINE AND ASSESS STUDENT OUTCOMES REMAINS LIMITED

- VEA funded programs require student follow up, but most local and statewide efforts to do so have been perfunctory and little reliable information, especially from employers, was available to indicate the effect of vocational programs on the employment status of former vocational students or other measures of program impact.
  - According to the Statewide Longitudinal Study, most persons attending CCC vocational courses did not intend to complete a defined program; the majority of these are part-time and attend in the evening. (139)
  - Existing studies indicated that those students who cared about being enrolled in a defined program maintained continuous enrollment over a number of semesters and attributed credit for getting jobs, raises and promotions to their CCC experiences.(140)

- One COCCC funded project showed signs of promise as a student follow-up system. (16) The system was being pilot tested in about 30 CCCs, but available data were not yet conclusive. However, preliminary results indicate the following:

- 60 percent of the students followed up found related employment if they completed their program and received an award (degree/certificate).
- CCC students with goals of seeking a new career or changing careers were less successful gaining related employment than those who had career improvement goals. (16) This may be due to the fact that many in the latter group were already employed.

- In 1981, 1 in 20 students in CCCs received an associate degree; 38% of these degrees were in occupationally related fields. National data indicate that during the same year, 1 in 11 CC students received an associate degree; 63% of these were in occupational fields. By 1983, the proportion of California students receiving AA degrees had declined but the proportion of occupational related AA degrees had increased; that is, 1 in 25 students in California received an associate degree, of which 41 percent were in occupational fields.

20. THERE IS GROWING CONSENSUS THAT DIVERSE STUDENT CHARACTERISTICS AND VARYING STUDENT GOALS DEMAND INCREASED EFFORTS TO ASSESS THE NEEDS OF STUDENTS PRIOR TO PROGRAM PLACEMENT

- The lack of a consistent means of identifying vocational students based on expressed goals, declared major, highest level of vocational course taken, or other objective and measurable terms has led many CCC vocational educators to believe that some form of assessment program would be useful in determining the vocational status of students. Help in program placement might improve retention rates and program completion. (6,58,74,87,89,91,108,143)

- CCC vocational administrators indicated that the following student services should be expanded during the coming half decade. (Appendex G)

  - Expanded use of assessment or testing for placing students in vocational programs (83%)
  - More emphasis on identifying student goals and objectives (64%)
  - Greater use of vocational and career counseling/guidance (91%)
  - Greater emphasis on providing job placement assistance (67%).

- There is an expectation that an increasing portion of students seeking vocational programs and job training will fall into nontraditional categories, i.e., displaced homemakers, adults in need of retraining, and those in need of financial assistance. These students will need a wide array of assistance and supportive services. (37,58, 64,93,94,122,149,150,151)

Part V

RECOMMENDATIONS FROM THE COMPREHENSIVE STUDY OF VOCATIONAL EDUCATION

Eight major and 14 supplemental recommendations resulted from this study. All of the recommendations fall into six areas: 1) Leadership, Mission, and Philosophy, 2) Program Planning and Coordination, 3) Student Services and Program Impacts, 4) Vocational Program Funding, 5) State Program Approval Process, and 6) State Information System. The topics and sequence of the major and supplemental recommendations are outlined on Table 5-1.

It should be noted that this study was directed toward statewide and state level issues. The recommendations follow this mandate and are focused on topics that should be deliberated by the Board of Governors (BOG) with subsequent review and action by the COCCC. Because of this orientation, the study team made an effort to show the relationship of each major and supplementary recommendation to the eight BOG adopted vocational education policies. The topic of each BOG policy and its relationship to each study recommendation is displayed on Table 5-2.

The study recommendations are presented by topic in the same sequence noted above. Each major and supplemental recommendation is followed by one or more statements providing its rationale, clarification, or amplification.

☐ "An excellent plumber is infinitely more admirable than an incompetent philosopher. The society that scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exhalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water."

- **John Gardner**

☐ "There is much more to life than one's work. ...education that begins and ends with preparation for work is not nearly as broad and comprehensive as it should be. The only thing worse than this is education that ignores the reality of work and the influence that work has upon all our lives. There are human values--very rich and meaningful ones--that are implicit in education for work."

- from The Place of Vocational Education in Higher Education... by Terrel H. Bell

Table 5-1

FOCUS AND SEQUENCE OF STUDY RECOMMENDATIONS

Leadership, Mission, and Philosophy:

1. COCCC MISSION STATEMENT ABOUT VOCATIONAL EDUCATION
    - 1.1 COCCC Leadership in Development of State Policies for Human Resource Development
    - 1.2 Delivery of Vocational Programs by Comprehensive Local Community Colleges
    - 1.3 Role of Job Training
    - 1.4 Role of Apprenticeship Programs

Program Planning and Coordination:

2. AREA PROGRAM PLANNING AND COORDINATION
    - 2.1 Broad Based Participation in Planning Process
    - 2.2 Local Vocational Education Plans
    - 2.3 Use of Labor Market Information
    - 2.4 Vocational Administrator, Faculty, and State Staff Development
3. STATEWIDE NEEDS ASSESSMENT

Student Services and Program Impacts:

4. IDENTIFICATION OF VOCATIONAL STUDENTS
    - 4.1 Student Assessment and Placement Models
    - 4.2 Student Follow-up System

Vocational Program Funding:

5. STATE DIVISION AND DISTRIBUTION OF VEA FUNDS
    - 5.1 VEA Allocation Formula Used by COCCC
    - 5.2 Funding Special Projects
6. USE OF STATE FUNDS FOR EQUIPMENT

State Data Collection and Utilization:

7. PROGRAM APPROVAL PROCESS
8. COORDINATION AND TIMELINESS OF STATE REPORTS
    - 8.1 Reporting of Non-VEA Programs and Services
    - 8.2 Faculty/Staffing Reports

Table 5-2

RELATIONSHIP OF STUDY RECOMMENDATIONS TO BOARD OF GOVERNORS ADOPTED VOCATIONAL EDUCATION POLICIES

BOG Policy Topic	Related Study Recommendations
1. State Leadership, Program Planning and Coordination as a Shared State and Local Responsibility	1.0, 1.1, 1.2, 2.0, 2.1
2. Allocation and Use of Funds	5.0, 5.1, 5.2, 6.0
3. Providing Access and Meeting Student Needs	1.3, 1.4, 4.0, 4.2
4. Assessment, Guidance and Counseling	4.0, 4.1, 4.2
5. Collaborative Efforts to Meet Job Market and Employment Training Needs	2.0, 2.1, 2.3, 3.0
6. Ensure that a Properly Qualified Professional Staff is Available to Deliver Vocational and Job Training Programs	2.4, 3.0, 8.2
7. Coordinated State and Local Endeavor to Assess Vocational Programs and Services	2.2, 2.3, 3.0, 7.0
8. BOG Efforts to Inform Various Publics About California Community College Vocational and Job Training Programs	1.0, 1.1, 8.0, 8.1, 8.2

LEADERSHIP, MISSION, AND PHILOSOPHY

RECOMMENDATION: I COCCC Mission Statement about Vocational Education

---

Given the changing demographics of the State, student demand, the growing need of industry and the State's economic development pattern, THE COCCC SHOULD EMPHASIZE THE PRIMARY FUNCTION OF VOCATIONAL EDUCATION AS PART OF THE MISSION OF CALIFORNIA COMMUNITY COLLEGES.

- By virtue of the history of vocational education in California's community colleges and the level of student demand for employment preparation at such institutions, the COCCC, in cooperation with and the input from local districts and the private sector, should clarify and emphasize the part vocational education plays in the overall mission of community colleges in the State.

- In order to develop a cogent position about the part vocational education plays in California community colleges, the COCCC should address the following issues as components of its mission statement:

    - What should be the respective roles and emphasis of short-term job training (credit and noncredit), retraining programs funded through various federal and state employment programs, contractual education, certificate programs, transfer vocational programs, and other services provided by community colleges for vocational students?

    - What are the ultimate goals of the COCCC in providing a wide array of vocational courses which are pursued by the vast majority of students taking vocational education on a part-time basis (74%) or in the evening only (48%) versus those who enroll during the day only (36%) and those day vocational students who generate 66% of the instructional hours in vocational education?

    - What is the conceptual and practical relationship of vocational education and job training to other educational functions of the community colleges such as transfer, general education, remedial education, and community/continuing education programs?

    - What is the role of the COCCC in helping community colleges meet locally defined employment and student needs versus addressing broader statewide needs?

Recommendation: 1.1 COCCC Leadership in Development of a State Policy for Human Resource Development

---

Given the diversity of perceptions and expectations of community colleges by the State Legislature, general public, students, and many educators themselves, THE COCCC SHOULD TAKE A LEADERSHIP ROLE IN ACTIVITIES AND AFFAIRS THAT WILL CLARIFY THE HUMAN RESOURCE DEVELOPMENT POLICIES OF THE STATE OF CALIFORNIA AND THE ROLE OF CALIFORNIA COMMUNITY COLLEGES AS VOCATIONAL PROGRAM AND JOB TRAINING DELIVERERS IN THE STATE.

- In the absence of a defined and coherent state policy on human resource development, despite California's economic position in the nation and the world, delineation of function among the major program providers in the State is left to interscene confrontation and competition rather than cooperation. Without such a state policy as the framework for role definition for various major program providers, the problem of definition of function will continue.

- Contacts with private companies and industrial organizations indicated that there is diverse opinion about the need for a state level policy for human resource development. (113) There is reluctance of the state legislature to tackle such an issue without external indications of the need to do so. Some other states have established a general policy framework on the role of various training agencies, including community colleges. In California various state and federal employment training programs have individual policy statements regarding this issue, but without someone taking leadership, these remain parts rather than a coordinated whole and the parts within each agency will remain fragmented.

- The need for clarification of the role of community colleges as deliverers of vocational and job training programs is intensified by the dichotomy of perceptions about their role as 1) a segment of higher education intended to carry out state policies and priorities primarily in the realm of transfer programs, and 2) their role as locally governed postsecondary institutions established to carry out a multitude of programs and services to meet local cultural, social, economic, and educational needs and expectations beyond the traditional transfer function.

- The leadership role of the COCCC as a proponent of vocational education is a responsibility that should not be limited to activities aimed at compliance with federally supported programs. The economic diversity and strength of California along with the diverse needs of youths and adults for employment preparation, career improvement and retraining places the COCCC with the position to articulate not only what it is doing to meet the needs of students and industry, but what it is committed to doing in the realm of vocational education and job training.

Recommendation: 1.2 Delivery of Vocational Programs By Comprehensive Local Community Colleges

---

Because of historical precedence and the demonstrated strength and effectiveness of community colleges in providing educational access to citizens of the State, VOCATIONAL PROGRAMS SHOULD CONTINUE TO BE OFFERED WITHIN THE CONTEXT OF COMPREHENSIVE COMMUNITY COLLEGES, BUT OTHER OPTIONS SHOULD BE CONSIDERED FOR LOCAL COLLEGES THAT CAN AND WISH TO DELIVER VOCATIONAL EDUCATION THROUGH DIFFERENT INSTITUTIONAL MODELS.

- In California, contrary to some other states in which technical institutes and postsecondary regional vocational schools have been established, vocational programs have traditionally been offered under the auspices of comprehensive community colleges. This practice is still the institutional mode with the greatest support among community college educators in the State and should be continued. This is especially true for small and rural community colleges serving sparsely populated areas.

- Comprehensive community colleges are viewed as the strongest vehicle for delivering vocational programs by local deliverers and many state leaders. The comprehensiveness of the colleges results in access for a variety of populations. As a result, it is important to recognize the place of job training programs which are below traditional college level standards as a function of the comprehensive community colleges in the State.

- There are few examples of colleges that concentrate on technical programs within California, but alternative modes for delivering highly technical programs should be considered an option at local discretion. Such options might be operated as units of a comprehensive college when they meet demonstrated industry needs, engender strong private sector support, and will provide access to such specified training on a regional basis beyond the service areas of individual community college districts.

- Models of collaboration among community colleges such as the aerospace technology curriculum consortium in Southern California and the electronics industry in Santa Clara county should be fostered and supported by the COCCC as alternative methods for developing curriculum, linking training to identified labor market needs, involving the private sector directly in program design and resource formation, and facilitating staff development, program coordination, and institutional cooperation among participating community colleges.

Recommendation: 1.3 Role of Job Training in the Community Colleges

---

Based on the vocational education policies adopted by the Board of Governor's, THE COCCC SHOULD DEVELOP AND COMMUNICATE ITS SUPPORT FOR THE ROLE OF CALIFORNIA COMMUNITY COLLEGES AS A MECHANISM FOR DELIVERY OF JOB TRAINING.

- The Board of Governors (BOG) has adopted a set of vocational education goals and related policy statements which include the definitions of vocational education and job training. The COCCC needs to take the next step by implementing such policies and communicating publicly the role of California community colleges as a mechanism for delivery of JOB TRAINING programs.

Recommendation: 1.4 Role of Apprenticeship in Community Colleges

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THE COMMUNITY COLLEGES AND COCCC SHOULD EXAMINE THE AMBIGUITY SURROUNDING APPRENTICESHIP PROGRAMS WITHIN THE VOCATIONAL EDUCATION MISSION OF COMMUNITY COLLEGES.

- The place of apprenticeship programs within the mission of open-door community colleges should be reviewed in light of how program content, instructional staff, and student access are controlled for such programs.
- Apprenticeship programs offered by community colleges should be reviewed because they continue to have imbalanced programs by gender and it should be determined what steps should be taken to remediate this situation given the fact that community colleges are criticized for gender equity imbalances that are not within their control because of the nature of such programs and employment practices in the trades involved.

PROGRAM PLANNING AND COORDINATION

RECOMMENDATION: 2 Area Program Planning and Coordination

REGIONAL AND AREA VOCATIONAL PROGRAM PLANNING EFFORTS AMONG LOCAL COMMUNITY COLLEGES SHOULD BE ENCOURAGED, STRENGTHENED AND UTILIZED BY THE COCCC.

- Area planning groups among occupational administrators are used currently by many community colleges for local program planning and coordination. This practice should be continued and reinforced by the COCCC as a means for addressing program needs of regional labor markets, local industry and business training requirements, program coordination, articulation with secondary schools and other training agencies, and curriculum development in new and emerging fields being offered by area community colleges.
- In order to strengthen communications and working relationships between the COCCC and local community colleges, all units within the COCCC should utilize the same planning areas as the occupational administrators for major COCCC functions involving the field as well as for staff liaison assignments.

Recommendation: 2.1 Participation in the Planning Process

THE COCCC SHOULD EXPAND EFFORTS TO UTILIZE A BROAD BASE OF LOCAL DISTRICT AND EMPLOYER PARTICIPATION IN IDENTIFYING VOCATIONAL PROGRAM NEEDS, PRIORITIES, AND METHODS OF COLLABORATIVE PLANNING FOR VOCATIONAL AND JOB TRAINING PROGRAMS.

- Use of various state organizations, coalitions, state administrator's associations, and regional industry-education groups from the private sector should be formally incorporated in the information gathering and decision-making process of the COCCC in relation to vocational education.
- The COCCC has established 13 statewide advisory committees in major subject areas and functions of vocational education to provide input and advice on program direction and assessment. The purpose(s) and effectiveness of these committees should be reviewed to determine their future role in statewide planning and program assessment.

Recommendation: 2.2 Local Vocational Educational Plans

USE OF LOCAL VOCATIONAL EDUCATION PLANS SUBMITTED TO THE COCCC SHOULD BE REVIEWED WITH THE OBJECTIVE TO SYSTEMATIZE AND SIMPLIFY SUCH DOCUMENTS AS PART OF A STATEWIDE PROGRAM PLANNING PROCESS AND NEEDS ASSESSMENT.

- Current practice of reviewing local vocational plans by the COCCC does not follow a consistent or agreed upon system or criteria. Such plans range in thoroughness and content. Until recently (1983-84), local plans could not be aggregated to determine statewide needs. Based on a preliminary review of the new format for vocational plans required by local community college districts it is doubtful that statewide needs can be assessed from them without some modification.
- Essential planning information needs should be determined, a format and procedure to obtain such information from local districts should be developed, and the system should be implemented as soon as possible. This process should be consistent and compatible with other state information gathering requirements.
- As designed in the past local vocational plans have been limited to federal compliance requirements. In order to make them more reflective of the practices in the field, such plans should include provisions for describing activities related to other local employment training efforts of the college(s). When such information is available in succinct form, resource allocation can be more effectively related to local needs and determination of statewide trends and needs can be summarized and incorporated in state plans.

Recommendation: 2.3 Use of Labor Market Information in Program Planning

STRONGER EMPHASIS SHOULD BE PLACED UPON UTILIZATION OF LABOR MARKET INFORMATION AND TRENDS FOR VOCATIONAL PROGRAM PLANNING AT BOTH STATE AND LOCAL LEVELS.

- Use of labor market data from the State Employment Development Department (EDD) and other state level agencies such as the California Occupational Information Coordinating Committee (COICC) has not been totally effective because such data and occupational projections have certain technical flaws and often do not coincide with service areas of community college districts. Some steps have been taken to rectify many of the weaknesses of the labor market information that is available. Thus, when this information is used with additional input from local employers and regional agencies, such as the San Francisco Bay Area Council and the Technology Exchange Center in Orange County, the linkage between actual job opportunities and community college vocational programs can be improved. (24,26,80)

Recommendation: 2.4 Vocational Administrators, Faculty, and State Staff Inservice Needs

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THE COCCC SHOULD ESTABLISH AS A STATE PRIORITY THE IMPLEMENTATION OF INSERVICE ACTIVITIES AND PROFESSIONAL DEVELOPMENT PROGRAMS TO ASSIST VOCATIONAL ADMINISTRATORS, INSTRUCTORS AND STATE STAFF STAY CURRENT IN THEIR RESPECTIVE FIELDS.

- A needs assessment should be conducted to identify and describe the primary staff development needs by program area. Existing inservice programs and funding avenues should be viewed as elements in a comprehensive state plan for professional development. Employer Based Training (EBT), Planning for Renewal in Occupational Programs (PROP), and state administrative and faculty associations should be utilized and assisted as possible to deliver appropriate inservice programs including state conferences, workshops, internships, and industry assisted programs.

- As noted in this recommendation the need for professional development and inservice cuts across state and local personnel. On some topics or issues, when possible, both state and local staff should take designated inservice training together.

RECOMMENDATION: 3 Development of Statewide Needs Assessment

THE COCCC SHOULD DEVELOP AND INITIATE A PROCESS FOR CONDUCTING A STATEWIDE NEEDS ASSESSMENT THAT CAN BE CARRIED OUT ON A CONTINUING BASIS.

- Based on current information collection and planning practices there is a need for the COCCC to establish a mechanism for conducting statewide needs assessment on an ongoing basis. Many of the components of this process are already in place, such as 13 state level advisory groups and established contacts with various statewide organizations, but the means of converting needs assessment information into workable plans, programs, and supporting activities does not appear to exist currently within the COCCC.

RECOMMENDATION: 4 Identification of Vocational Students

THE COCCC SHOULD CONTINUE, WITH COOPERATION FROM THE FIELD, TO IDENTIFY MORE SPECIFICALLY "VOCATIONAL STUDENTS" FOR PURPOSES OF DETERMINING PROGRAM ENROLLMENTS, PROGRAM IMPACTS IN TERMS OF STUDENT GOALS, NEED FOR STUDENT FOLLOW UP, VEA ALLOCATIONS, AND PUBLIC INFORMATION.

- There is a sizable disparity between the number of students who attend one or more vocational classes in community colleges (75% of the students), the number of students who take vocational courses above the pre-vocational or beginning level (50% of all community college students in the State), and the number of students who claim to have a vocational goal while attending community college (50%). The term "vocational student" is applied without clear distinction to these general groups, yet all differ in terms of their commitment to program completion, level of training, course workload or employment status when enrolled.
- The Student Accountability Model (SAM) system attempts to classify students by the level of vocational coursework in which they enroll. But this classification system does not provide an indication of the extensiveness or intensity of training for employment which would be of value in the classification of vocational students.
- No system currently differentiates job training participants from vocational education students for state reporting. Many of the job training programs funded through federal employment projects do not generate average daily attendance (ADA), but for purposes of knowing how many people take such training and the duration of training by type or level, such information would be useful for planning and priority setting.

> ☐ "Many community college students who are not classified as vocational enroll in and successfully complete a sequence of vocational courses. More than 21 percent of the transfer students (in the State Longitudinal Study) were vocational transfers."
>
> • M. Stephen Sheldon, "What Is a Vocational Student," VocEd, September 1983.

Recommendation: 4.1 Student Assessment and Placement Models

THE COCCC SHOULD GIVE PRIORITY TO THE DEVELOPMENT AND IMPLEMENTAION OF STUDENT ASSESSMENT AND PLACEMENT MODELS AND ENSURE THAT THESE MODELS INCLUDE APPROPRIATE PROVISIONS FOR STUDENTS WITH VOCATIONAL GOALS.

- Various vocational programs require educational competencies, aptitudes, or interests that will help student succeed in them. Existing models for screening and counseling students exist and efforts should be made to assess these and/or develop such programs that can be implemented on a statewide basis. (89,110,111,133,134,135)

Recommendation: 4.2 Student Follow-up System

THE COCCC SHOULD CONTINUE TO SUPPORT AND EXPAND THE USE OF A VOCATIONAL STUDENT FOLLOW-UP SYSTEM THAT PROVIDES DATA ON A STATEWIDE BASIS ABOUT THE OUTCOMES OF VOCATIONAL PROGRAMS BASED ON STUDENT GOALS.

- The COCCC has funded a special project, "Using Student Performance in Planning," which is being pilot tested in about 30 community colleges in the State. Plans for expanding and continuing this student follow-up system should be implemented in order to provide necessary information on a statewide level as well as feedback to local participating colleges. (15,16,139)

- Preliminary findings from this follow-up system indicate that students with a goal to enter a "new career" were less likely to be employed than those with goals such as transfer, career improvement or other goals. A closer investigation of the seemingly low related job placement rates for "new career" seekers taking vocational programs in community colleges should be undertaken.

- A comprehensive look at local efforts to follow up vocational students indicates a wide range of effectiveness, commitment, and results. Yet, without such information and adequate resources to carry out this function, a critical piece of information for program planning and evaluation is missing. (118)

VOCATIONAL PROGRAM FUNDING

RECOMMENDATION: **5** State Division and Distribution of Federal VEA Funds

THE FORMULA FOR DIVISION OF THE CARL D. PERKINS VOCATIONAL EDUCATION ACT (PL 98-524) FUNDS BY THE STATE BETWEEN SECONDARY AND POSTSECONDARY INSTITUTIONS SHOULD BE REVIEWED WITH THE OBJECTIVE OF CHANGING THE PROCESS AND CRITERIA FOR DIVIDING THE FUNDS BASED ON NEED. IF SUCH A DIVISION CANNOT BE MUTUALLY AGREED UPON, THE MATTER SHOULD BE ADJUDICATED BY AN IMPARTIAL THIRD PARTY.

- The State Board of Education (SBE) is currently the sole state agency for receipt and distribution of federal VEA funds. A joint policy committee comprised of SBE and BOG representatives has been used to consider VEA funding allocation and distribution issues. In large measure this has been based on a negotiated process rather than objective criteria that might include such factors noted in the above recommendation. The result has been that the secondary level has consistently received about 55% or more of the available VEA funds.

- Discussions have been held about rotating sole state agency responsibility between the two agencies (SDE and COCCC), but no action has been taken at this time. An equally fruitful and constructive step might be to identify and agree on the criteria for distribution of VEA funds and the processes which will be used to avoid undue delays in that distribution regardless of which agency is designated responsibility.

- Objective criteria that might be considered in addition to enrollments include: level and type of programs offered, total hours of instruction provided by program, relatedness of training to employment opportunities, and statewide policies, needs or priorities.

Recommendation: 5.1 VEA Allocation Formula Used by COCCC

COCCC ALLOCATION OF FEDERAL VOCATIONAL EDUCATION ACT (PL98-524) FUNDS SHOULD INCLUDE THE USE OF STUDENT CONTACT HOURS OR FTE GENERATED ANNUALLY BY EACH PROGRAM AS PART OF THE ALLOCATION FORMULA WITHIN PERMISSIBLE PROVISIONS OF THE LAW.

- The current act does not provide funds for maintenance of programs and, thus, current practice places emphasis on the allocation of VEA funds not designated for special populations to help maintain funding stability from year to year. It does not use weekly student contact hours (WSCH) generated by program as a factor for allocating the program improvement funds to local districts. Thus, magnitude and work load are not determined for programs.
- Even though the actual dollar amount available for program improvement is small, use of WSCH or full-time equivalent (FTE) as a factor in VEA allocations could indicate a state priority for encouraging program completion, strenghtening support for the associate degree and encourage local districts to counsel students toward taking and completing vocational programs because hours of instruction would be a factor rather than head count alone.

Recommendation: 5.2 Funding of Special Projects

AS PART OF ITS LEADERSHIP ROLE IN THE STATE, THE COCCC SHOULD FUND OVER A MULTI-YEAR PERIOD THOSE SPECIAL VOCATIONAL EDUCATION PROJECTS THAT HAVE AN IDENTIFIED NEED AND POTENTIAL FOR STATEWIDE IMPACT.

- Approximately **300** special projects for subparts 2, 3 and 5 VEA funds were approved for 1983-84 and 1984-85. These included projects funded by both the COCCC and SDE. Most were funded for one year.
- The COCCC has funded a one year project in curriculum development in manufacturing technology. However, implementation of such curriculum by several community colleges requires coordination and planning activities beyond the development of the curriculum itself. It also calls for state financial support that would be appropriate for special funding because local institutions cannot generally afford funds from district budgets to obtain technical assistance or outside support activities. However, these activities often extend over more than one year in order to reach maximum effectiveness. Therefore, a multi-year funding plan based upon satisfactory progress and attainment of stated objectives should be considered in such cases.

RECOMMENDATION: **6** Use of State Funds for Equipment

BASED UPON AN ACCURATE, EMPIRICAL AND UNIFORM METHODOLOGY WHICH RESULTS IN AUTHORIZATION OF A LINE ITEM, THE COCCC SHOULD DEVELOP A BUDGET PLAN TO CONTINUE FUNDING FOR RENEWAL AND UPDATING OF INSTRUCTIONAL EQUIPMENT FOR VOCATIONAL EDUCATION NEEDS IN THE STATE.

- Currently funds made available through the legislature and other sources do not specify that any portion be used for vocational program needs or guarantee the continued availablity of funds for maintenance and upgrading of equipment. Unless this provision is made, funds for equipment may not be available to meet the needs of such programs.

PROGRAM APPROVAL PROCESS

RECOMMENDATION: **7** Vocational Program Approval Process

In order to improve the accuracy of COCCC files THE CURRENT STATE PROGRAM APPROVAL PROCESS (for Vocational Programs) SHOULD BE REVIEWED AND MODIFIED TO IMPROVE ACCURACY AND CURRENCY OF STATE RECORDS.

- In order to improve the accuracy between vocational programs offered by local districts and the recorded TOPs approved by the State, a "hold harmless" period should be adopted by the COCCC during which efforts to align state records with local practices can be worked out with each district. The function of this time period should be to achieve better identification of approved programs that are inaccurately recorded because of a combination of clerical, administrative, and other misclassifications. An avoidance of punitive action while the records are being rectified should occur.

- Approval for modification of existing vocational programs should be simplified and streamlined in order to bring into line the actual practices in the field with State approved program records. Updating of programs should be facilitated so that as programs evolve, program changes would be reported and the state records would reflect current practices. What ever system is utilized should require reporting of data by complete Taxonomy of Programs (TOPs) code numbers so that comparable data will be available.

STATE INFORMATION SYSTEM

RECOMMENDATION: **8** Coordination and Timeliness of State Reports

In order to improve the collection and utilization of locally generated reports to the State, THE COCCC SHOULD REVIEW THE PURPOSE AND USE OF EXISTING REPORTS TO DETERMINE HOW VOCATIONAL EDUCATION INFORMATION ON PROGRAMS, ENROLLMENTS, AND HOURS OF INSTRUCTION CAN BE MORE EFFECTIVELY COORDINATED AND UTILIZED.

- Currently three different reports related to vocational enrollments and instructional hours are required from local districts. Each of these reports is submitted to different COCCC operational units, is required on different dates and used for different purposes. This may be necessary, but data supposedly generated for the same programs do not coincide or match. Thus, use of the data for planning or assessment purposes is not practical, confusing and in a constant state of flux.
- VEA enrollment data reported to the COCCC may be changed by local districts and the COCCC for a period of several years as discrepancies are discovered. Thus, there appears to be no final printout of VEA enrollments which can be used for program planning and analysis.

Recommendation: 8.1 Reporting of Non-VEA Vocational Programs

In order to permit the COCCC to carry out the function of information dissemination, A SYSTEM FOR OBTAINING DATA ON VARIOUS NON-VEA VOCATIONAL AND JOB TRAINING PROGRAMS AND ENROLLMENTS SHOULD BE INSTITUTED.

- Currently information about non-VEA vocational and job training programs and enrollments is not uniformly gathered and assembled. The Employment Training Section within the Vocational Education Unit of the COCCC collects information on a project by project basis for JTPA, ETP, and EBT projects which are administered with funds under state control and are offered by community colleges. However, little information is available on contractual education job training programs. The statewide study of contractual education now in process may lend light on current practices in the field and may suggest reporting procedures.

Recommendation: 8.2 Faculty/Staffing Reports

In order to ensure a properly qualified staff, THE COCCC SHOULD INSTITUTE A SYSTEM FOR COLLECTION OF INFORMATION ABOUT VOCATIONAL EDUCATION INSTRUCTORS WHICH WILL PROVIDE ONGOING INFORMATION ABOUT THEIR EMPLOYMENT PATTERNS, DEMOGRAPHIC CHARACTERISTICS, FULL- AND PART-TIME STATUS, AND INSERVICE NEEDS.

- The current data collection system and community college staffing report does not provide information about inservice educational needs nor does it distinguish between vocational and nonvocational instructors.

> ☐ "Community colleges in California may be victimized by their own success in providing access to higher education. About three quarters of the students who enter higher education in California do so through a community college."
>
> - California Community College District Chancellor

Appendix A

LIST OF RESOURCE DOCUMENTS REVIEWED DURING THE STUDY

List of Resource Documents Reviewed During the Study

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Appendix B

COLLEGES RESPONDING TO THE SURVEY OF CURRENT PRACTICES AND FUTURE TRENDS

American River College
Barstow College
Cerritos College
Chabot College
Coastline Com. College
Contra Costa College
Cuyamaca College
DeAnza College
Evergreen Valley College
Fresno City College
Glendale College
Grossmont College
Indian Valley Colleges
Los Angeles CC District-9col.
Los Angeles Southwest Col.
College of Marin
Merced College
Mira Costa College
Monterey Peninsula College
Mt. San Antonio College
Napa Valley College
Orange Coast College
Palomar College
College of the Redwoods
Riverside City College
Saddleback College
San Diego City College
San Diego Miramar College
San Jose City College
Santa Monica College
College of the Sequoias
Sierra College
Skyline College
Ventura College
Yuba College
Antelope Valley College
Butte College
Cerro Coso Com. College
Chaffey College
Columbia College
Cosumnes River College
Cypress College (Dis.Resp.)
Diablo Valley College
Foothill College
Fullerton College
Golden West College (Dis.Resp.)
Hartnell College
Long Beach City College
Los Angeles Mission College
Los Medanos
Mendocino College
Merritt College
Modesto Junior College
Moorpark College
Mt. San Jacinto College
Ohlone College
Oxnard College
Pasadena City College
Rio Hondo College
Sacramento City College
San Bernardino Valley College
San Diego Mesa College
San Joaquin Delta College
Santa Ana College(R.Santiago)
Santa Rosa Junior College
Shasta College
College of the Siskiyous
Solano Community College
West Hills College

Appendix C

INDIVIDUAL CONTACTS AND/OR PRESENTATIONS WERE MADE WITH THE FOLLOWING ORGANIZATIONS

Academic Senate California Community Colleges
Association of California Community College Administrators
Bank of America
Bay Area Council of Employment Training
California Association of Community Colleges
California Association of Community Colleges Commission on Research
California Commission for the Review of the Master Plan for Higher Education
California Community College Administrators of Occupational Education
California Community College Occupational Education Coalition
California Community College Administrators of Occupational Education
California Community College Chief Student Services Administrators Association
California Community College Placement Association
California Community Colleges Board of Governors
California Community Colleges Trustees Association
California Employment Development Department, Employment Data & Research Division
California Employment Training Panel
California Assembly Committee on Economic Development and New & Emerging Technologies
California Manufacturers Association
California Postsecondary Education Commission
California Occupational Information Coordinating Committee
California State Council on Vocational Education
California State Department of Education
California State Job Training Coordinating Council
California State Polytechnic University, Pomona
California State University, Los Angeles
Chancellor's Office, California Community Colleges
    Analytical Studies Unit
    Facilities Planning Unit
    Fiscal Services Unit
    Program Evaluation Unit
    Specially Funded Programs Unit
    Vocational Education Unit
Douglas Aircraft
Genentech
Gould AMI
Hughes Helicopter
Industry Education Council of California
Intel
Lawrence Livermore Labs
MCRB Service Bureau, Inc.
Northrop
Occupational Education Advisory Committee for Evaluation and Research

Pacific Bell
Pacific Gas & Electric
Rockwell International
Rolm
Southern California Aerospace Industry Education Council
University of California, Santa Cruz
University of Southern California
USOE, Office of Educational Research and Improvement

Appendix D

SOCIOECONOMIC CHARACTERISTICS OF STUDENTS DECLARING A VOCATIONAL GOAL COMPARED TO THOSE DECLARING A TRANSFER OR BASIC SKILLS GOAL

SPRING 1984

In order to provide a profile of the vocational education student, documents obtained from the Chancellor's Office, California Community Colleges (COCCC) were reviewed. One study conducted in Spring 1984 had potential because of its large sample and statistical reliability. The tapes from about 7000 survey respondents were available. Upon request by Carvell Education Management Planning Inc. (Carvell), Dr. Leonard Shymoniak of the Analytical Studies Unit ran the tapes using stated student goal as the dependent variable. This report is based on the data provided from that computer printout. The appendix materials of this report contain the survey methodology of the original study which was conducted for the Chancellor's Office by Field Research Corporation. The sampling methodology for this statewide study was constructed to give a balanced response from the various ethnic groups attending California community colleges (CCCs). The study included a random sample of students from 62 community colleges of various size, geographic location and setting, and had both single- and multi-college district schools. For these reasons the data were selected as a primary means for describing the characteristics of students with vocational goals.

> "To describe students accurately, we must evaluate student outcomes according to the goals and capabilities of the individual students themselves. If one lumps all students together, the conglomerate resembles no one."
>
> M. Steven Sheldon, Statewide Longitudinal Study

Students with vocational goals were greater in number than those with transfer and basic skills goals combined. The vocational students resembled their transfer counterparts in only two areas--their proportions in various ethnic groups and that women students outnumbered male students; in other ways these two groups of students did not resemble each other. In age and independence the vocational goal student resembled the basic skills student but differed in income and ethnic grouping. A higher proportion of the basic skills students did not work while attending. These students were more likely to be Asian and to attend non-credit classes than others. In addition to students with the three goals listed above, there was another group of respondents that had various other reasons for attending. This group was white, better educated, either working full-time or not working, and economically independent. Nearly half owned their home and 40 percent were over age 40. Few were full-time students and they often elected to not take grades in their courses.

KEY CHARACTERISTICS OF VOCATIONAL GOAL STUDENTS

- There were more students with vocational goals than students with any other goals--46% of the sample had vocational goals
- Vocational goal students were proportionately represented in the various ethnic groups based on statewide CCC demographic patterns
- Vocational goal students were older--45% over 30 and 10% under 20
- Half worked full-time while attending college
- Only 13% (1 in 8) attended full-time
- About half attended in the evening only and another 16% attended in both the day and evening
- About half reported at Grade Point Average (GPA) of B or better while attending their current CCC
- Two thirds were financially independent and 30% were buying or owned their homes
- Over half were single; 9% of all with a vocational goal were single parents
- One of four made over $24,000 (about 1/2 made at least $12,000) in 1983

COMPARISON OF SOCIOECONOMIC CHARACTERISTICS OF STUDENTS BY EDUCATIONAL GOAL

In order to understand the profile of students with vocational goals and to describe the populations served by community college vocational programs, it is useful to compare their characteristics with students with different goals. These comparisons are displayed on Chart 1 and discussed briefly below.

1. Student Goals: Students with a vocational goal comprised about 46% of all respondents, 31% had a transfer goal, 7% a basic skills goal, 16% had other goals. Although there were 7094 responses, not all students responded to every item.
2. Ethnic Balance: Generally, the percent of each ethnic group was similar to the student body of all California community colleges (CCCs) for students who expressed a vocational or transfer goal; however Asians, and to a lesser degree Hispanics, were more highly represented by students with a basic skills goal.

Chart 1

COMPARISON BY SOCIOECONOMIC CHARACTERISTICS OF STUDENTS BY EDUCATIONAL GOAL

	Educational Goal Expressed by Student		
Characteristic	Vocational	Transfer	Basic Skills
1. Proportion of Survey Sample	About 1 of 2	About 1 of 3	About 1 of 14
2. Ethnic Mix to CCC Ethnic Mix	Similar	Similar	More Asian
3. Ratio of Men to Women	More Women	More Women	More Women
4. Age of Students	Older	Younger	Older
5. Married	About 1 of 2	1 of 5	Over 1 of 2
6. Working Pattern	1 of 2 Worked Full-time	Varied	Full-time or Not Employed
7. Institution of Prior Attendance--High School	Under 1 of 2	Over 1 of 2	Under 1 of 2
8. GPA Self-defined:B or Better	About 1 of 2	About 1 of 2	About 1 of 4
9. Attend in:Day Only Evening Only	About 1 of 3 Nearly 1 of 2	Over 1 of 2 Nearly 1 of 4	About 4 of 10 Nearly 1 of 2
10. In School:Enrolled:Full-time Part-time Noncredit	About 1 of 6 About 3 of 4 About 1 of 12	About 2 of 5 About 1 of 2 About 1 of 33	About 1 of 16 Nearly 6 of 10 Over 1 of 3
11. In School:Units Compl. 60+ None	Over 1 of 3 1 of 7	Under 1 of 3 1 of 12	About 1 of 3 1 of 3
12. Independent, Self-supporting	2 of 3	Under 1 of 2	Over 6 of 10
13. Living Arrangement:Parent/Rel. Rent Own/Buying	About 3 of 10 About 4 of 10 About 3 of 10	Over 1 of 2 About 1 of 3 About 1 Of 7	About 3 of 10 About 1 of 2 Under 1 of 4
14. Income for 1983: Over $24,000 Over $12,000 Less $ 6,000 Less $ 3,000	1 of 4 About 1 of 2 1 of 3 Under 1 of 4	1 of 8 Under 4 of 10 Over 1 of 2 4 of 10	1 of 6 Under 4 of 10 Over 4 of 10 3 of 10
15. Paid for Childcare to Attend	About 1 of 8	Under 1 of 10	Under 1 of 10

Note: Information on this chart is limited to data from students expressing vocational, transfer or basic skills goals and do not include those with other educational goals. (16% of 7094 respondents had various other goals.)

Source: Compiled by Carvell Education Management Planning Inc. from computer data in the Chancellor's Office, California Community Colleges, Analytical Studies Unit, from the Student Socioeconomic Characteristics: Spring 1984 study by Field Research Corporation (December 1984), May 1985.

3. Sex of Students: More women responded than men for each goal statement. Fifty-four percent (54%) of the total respondents were women; 53% of those with a vocational goal were women.

4. Age: The age of students presents an interesting picture when examined by goal of respondent. Students with vocational and basic skills goals were older, 45% of those with a vocational goal and 52% of those with a basic skills goal were 30 years or older. On the other hand those with transfer goals were younger, 23% were under 20 years old and less than 20% were equal to or over 30 years.

5. Marriage Status: Forty-five percent (45%) of the vocational group and 53% of the basic skills group were married. However the transfer group differed from these two groups in that only 21% were married--almost 80% were single.

6. Hours Worked Per Week: 48% of the vocational goal group worked 40 or more hours per week. The basic skills group tended to either work full-time (38%) or not at all (29%). Transfer goal students varied in the number of hours they worked (26% full-time).

7. Institution of Prior Attendance: Less than half the vocational (45%) and basic skills (44%) came to their current community college from high school; on the other hand 62% of the transfer students said high school was their institution of prior attendance.

8. GPA: Self-reported grade point averages indicated that about 48% of those with vocational goals and transfer goals had a 3.0 or better GPA but more of those with a vocational goal did not complete (16%). Those with a basic skills goal had lower GPAs and more often than any group did not complete the courses in which they enrolled (24% did not complete) and another 19% were in classes which were not graded.

9. Time of Attendance: Thirty-six percent (36%) of the vocational goal students attended college during the day only, another 16% attended both day and evening and 48% attended in the evening only. This pattern was similar for basic skills students, but the transfer student was more heavily concentrated during the day with 51% attending in the day only and another 24% attending in both day and evening.

10. Part-time and Full-Time: Of those student who indicated that they attended part-time, full-time or noncredit; 74% of the vocational goal students and 58% of the basic skills students attended part-time; even though 56% of the transfer group attended part-time, almost 40% attended full-time--a substantially higher proportion than any other group. The basic skills group had 35% who attended for noncredit.

11. Number of Units Completed: A high proportion of all groups had over 60 units (over 30%). Forty-five percent (45%) of the vocational group and almost 60% of the transfer group had between 1 and 59 units. The basic skills group had nearly (32%) with no units. The vocational group had 14% and the transfer group had 2% with a BA or higher. Surprisingly, 15% of the basic skills group and 34% of the group with "other " goals had a BA or higher.

12. Independent or Dependent: One third (33%) of the vocational and 29% of the basic skills group were dependent on family support while over half (57%) of the transfer group were dependent.

13. Living Arrangement: About 30% of the vocational and basic skills groups lived with their parents or relatives. However, over half (53%) the transfer group lived at home. Thirty percent (30%) of the vocational and 23% of the basic skills groups owned or were buying their homes. Few of the transfer group were buying or owned their homes (14%).

14. Income: Income was varied among the three groups. The vocational group was generally a higher income group than the transfer or basic skills group. Even though 33% of the vocational group earned less than $6000 during 1983, this was true for 56% of the transfer group (most of whom lived at home) and 41% of the basic skills group (most of whom were independent). Also, 25% of the vocational group earned over $24,000. The group that was designated "other" had 37% in the over $24,000 income category.

15. Childcare Expenses: Vocational goal students (12%) were more likely than any group to have paid for childcare to attend college. If one considers that women may be more likely to have childcare expenses than men, the figure could rise to nearly 25% of the women with a vocational goal. Reported childcare expenses tended to be less than $60 per month.

In summary, student characteristics do appear to differ by educational goal. A question that needs to be addressed may be, "Is it more important to provide access and instruction for many students or is it more efficient to expend resources for those who generate more hours?" As the community colleges of California address their mission, they will need to recognize that the students who come to California community colleges are there for a variety of purposes--some are employed and already contribute to their education through taxes and may, through occupational upgrading, contribute even more to the economy.

A second question is, "Do transfer students become vocational students as they grow older or as they find that preparing for entry level employment or occupational upgrading becomes a more urgent, immediate goal than preparing for extended higher education?" How does this impact faculty load, teaching assignments, professional development and the use of part-time instructors? What is the impact on full-time faculty and student support services of a high proportionate evening population? Does it have impact on the image of the institution?

Finally, "What is the role in higher education for community colleges?" Does its nature differ from that of four-year colleges and universities? Community colleges have a primary task of preparing students for job entry or advancement within occupations which requires less than a baccalaureate degree. What is the proper educational role of community colleges in meeting the needs for a dynamic work force in a society that is increasingly oriented towards technology?

Appendix E

ENROLLMENT IN LARGE CCC APPRENTICESHIP PROGRAMS, 1983-84

Table E-1

ENROLLMENT IN LARGE CCC APPRENTICESHIP PROGRAMS,1983-84

TOP	TITLE	TOTAL	FEMALE		AMER. INDIAN			ASIAN			BLACK			HISPANIC			WHITE			HSPS	LEP	DISADV
					MALE	FEMALE		MALE	FEMALE		MALE	FEMALE		MALE	FEMALE		MALE	FEMALE				
0943.3	STATIONARY ENG	272	11	4.0%	3	1	25.0%	29	0	0.0%	38	1	2.6%	46	1	2.1%	143	8	5.3%	7	4	6
0947.3	HEAVY EQUIP OPER	663	51	7.7%	21	1	4.5%	19	0	0.0%	107	6	5.3%	137	8	5.5%	277	32	10.4%	4	2	4
0948.1	AUTO MECHANIC	411	17	4.1%	3	0	0.0%	101	3	2.9%	35	0	0.0%	49	1	2.0%	198	13	6.2%	11	23	66
0952.0	CONSTRUCTION CRAFTS	309	288	93.2%	0	16	100.0%	0	4	100.0%	3	17	85.0%	1	44	97.8%	17	207	92.4%	4	0	36
0952.1	CARPENTRY	4299	195	4.5%	130	6	4.4%	88	13	12.9%	240	26	9.8%	615	17	2.7%	2706	114	4.0%	3	6	107
0952.2	ELECTRICAL	1308	124	9.5%	35	0	0.0%	47	7	13.0%	107	10	8.5%	188	14	6.9%	803	93	10.4%	0	10	38
0952.3	PLUMBING	1056	84	8.0%	51	1	1.9%	26	0	0.0%	38	0	0.0%	125	8	6.0%	696	71	9.3%	6	38	129
0952.4	GLAZING	205	7	3.4%	10	0	0.0%	6	1	14.3%	6	1	14.3%	26	1	3.7%	149	4	2.6%	0	0	0
0952.5	MILL & CABINET	378	22	5.8%	11	2	15.4%	12	0	0.0%	23	6	20.7%	98	2	2.0%	210	12	5.4%	2	2	7
0952.6	MASON/PLASTERING	281	9	3.2%	8	1	11.1%	6	0	0.0%	50	2	3.8%	59	0	0.0%	141	6	4.1%	0	1	12
0956.0	INDUST TECH	535	23	4.3%	8	1	11.1%	42	3	6.7%	94	5	5.1%	55	3	5.2%	313	11	3.4%	2	0	29
0956.2	METAL WORKING	931	73	7.8%	38	1	2.6%	47	4	7.8%	67	15	18.3%	157	10	6.0%	498	43	7.9%	14	12	39
0956.3	MACHINE TOOL	608	57	9.4%	8	0	0.0%	29	0	0.0%	48	13	21.3%	108	17	13.6%	342	25	6.8%	3	10	39
2105.0	ADMIN OF JUSTICE	460	102	22.2%	1	5	83.3%	17	4	19.0%	28	9	24.3%	52	14	21.2%	257	70	21.4%	0	0	3
3002.0	INSTIT COOK	273	44	16.1%	2	0	0.0%	12	1	7.7%	36	2	5.3%	56	7	11.1%	122	347	74.0%	2	3	13
	SUB TOTAL LARGEST	11989	1107	9.23%	329	35	10.64%	481	40	8.32%	920	113	12.28%	1772	147	8.30%	6872	1056	15.37%	53	111	521
9999.0	OTHER	2100	273	13.0%	70	8	10.3%	370	26	6.6%	90	29	24.4%	140	18	11.4%	1157	192	14.2%	20	3	52
	TOTAL LARGEST	14089	1380	9.8%	399	43	9.7%	851	66	7.2%	1010	142	12.3%	1912	165	7.9%	8029	1248	13.5%	73	114	575
	TOTAL ALL APPRENTICE	15932	1954	12.3%	439	52	10.6%	943	83	8.1%	1078	186	14.7%	2083	213	9.3%	8888	1380	13.4%	87	128	750
	COMPLETERS APPRENTIC	6641	728	11.0%		NA			NA			NA			NA			NA		37	26	290
	PERCENT COMPLETERS	41.68%	37.26%																	42.53%	20.31%	26.67%

Source: Vocational education enrollments, 1983-84, Printout dated 6/13/85, from the COCCC.

Appendix F

COMPARISON OF ENROLLMENTS IN LARGE PROGRAMS BY SEX, ETHNIC ORIGIN AND SPECIAL NEEDS

- Table F-1 Comparison of Enrollments in Large Programs
- Table F-2 Comparison Part A and Part B Enrollments by Vocational Program, 1983-84
- Table F-3 Characteristics of Students Enrolled in Part A & Part B Vocational Programs, and Part A Completers, 1983-84
- Table F-4 Comparison of California and National Enrollments

COMPARISON OF ENROLLMENTS IN LARGE PROGRAMS BY SEX, ETHNIC ORIGIN AND SPECIAL NEEDS

Appendix Table F-1 shows the 30 largest community college vocational program enrollments in Part A courses. Students in these courses are potential students for follow-up and the courses are beyond the beginning or pre-vocational level.

Some observations from the table should be noted.

Although these 30 programs (with over 5000 enrolled) amount to about 10% of the total number of programs (314), they amount to two thirds (67%) of the total Part A enrollment.

15 of these 30 programs show over 80% enrollment by one sex; 8 are predominantly female and 7 male. Even though most of these programs have shown at least 5% improvement toward balance from a previous study, traditional programs are still very much in evidence. (43)

Only 0934.00, electronics, shows an ethnic minority total over 50% and Asians account for half that total.

Other programs showing minority totals at least 10 percentage points above the average are auto tech, family relations/child development, machine tool, auto mechanic and clerical. Asian males appear to be attracted to electronics and machine tool; hispanic males to auto tech and mechanics. Black females are more heavily enrolled in family relations/child development and Hispanic female in clerical occupations.

Handicapped students make up less than 2% of the total enrollment in vocational programs. No program shows an enrollment as high as 3%.

Limited English speaking students make up 3.2% of the total Part A enrollment. However, electronics-0934.00 shows 8.5% of its enrollment in limited English speaking students, apparently many of these are Asian. Other areas with over 6% limited English speaking enrollments are auto tehn, machine tool and family relations/child development.

Almost 1 in 5 students (18%) in Part A courses are identified as disadvantaged. In the 30 largest programs they account for 21% of the total. Five of the 6 programs which show over 25% disadvantaged are in female dominant programs: child development, typing, clerical, nursing (LVN), and family relations/child development. Only electronics tends to be a male dominant program.

Ethnic distribution and distribution of students with special needs show no significant differences between Part A students and Part B students. Also, there is no apparent differences between Part A students and completers in terms of enrollment and completion rates.

Part B enrollments show a higher proportion of females. This is accounted for primarily by the high percent of females enrolled in consumer homemaking courses in the Part B area.

Table F-1

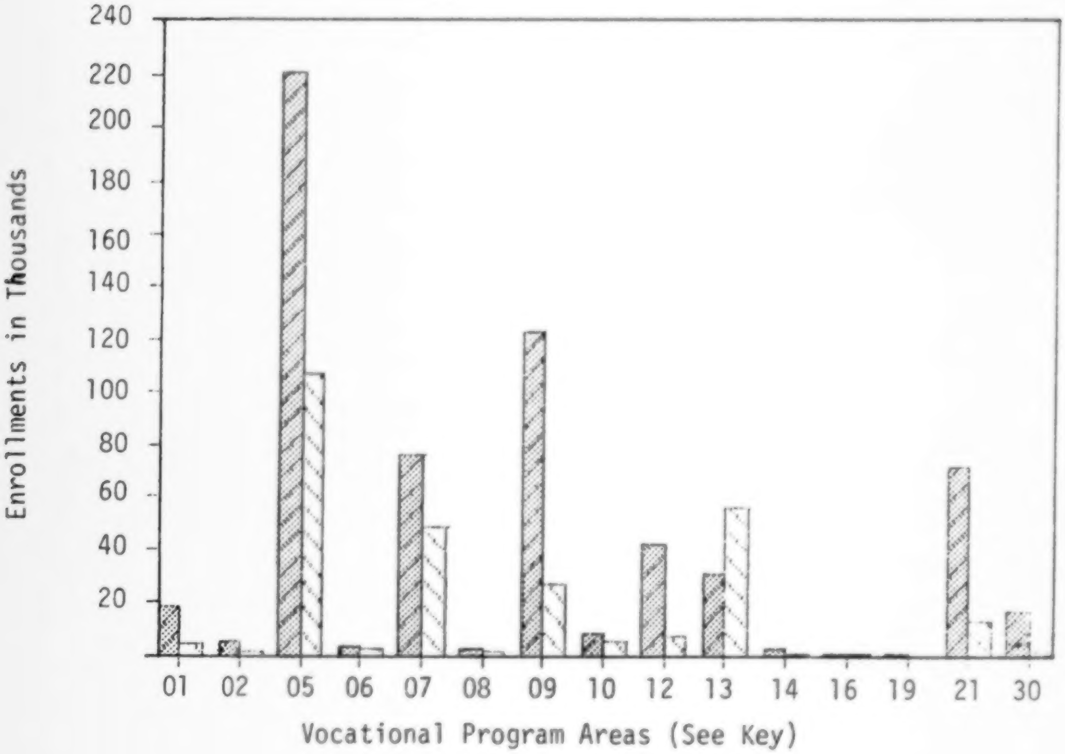
COMPARISON OF ENROLLMENTS IN LARGE PROGRAMS BY SEX, ETHNIC ORIGIN AND SPECIAL NEEDS

TOP	RANK	TITLE	PART A ENROLL	PERCENT FEMALE	PERCENT ETHNIC ASIAN	BLACK	HISPANIC	WHITE	PERCENT SPECIAL NEEDS HSPS	LEP	DISADV
0501.0	5	BUS/COMMERCE	30,677	63.3	11.3	15.6	9.1	59.8	1.6	2.2	15.3
0502.0	1	ACCOUNTING	50,266	61.7	13.2	10.8	10.9	61.7	1.3	3.5	18.7
0504.0	29	BANKING & FIN	5,277	62.7	10.5	15.2	13.7	58.5	1.2	3.8	14.8
0506.0	6	BUS MANAGEMENT	25,423	51.5	7.6	12.9	11.7	65.2	1.6	2.0	16.1
0506.3	15	MANAGEMENT DEV	10,323	49.6	6.0	10.2	10.8	70.1	0.9	0.9	13.0
0509.0	19	MARKETING/DIST	7,522	51.9	9.9	10.1	10.0	66.7	1.0	1.3	20.3
0509.5	28	MERCHANDISING	5,285	55.2	10.0	12.8	11.1	63.5	1.0	3.1	15.7
0511.0	16	REAL ESTATE	9,655	46.8	9.8	6.7	8.1	72.6	0.8	1.6	10.8
0514.0	3	SECRETARIAL	36,763	85.8	8.9	14.0	16.4	57.5	1.9	5.4	23.6
0514.5	12	CLERICAL	11,592	84.2	9.6	14.1	18.4	53.2	2.7	4.8	27.2
0514.6	11	TYPING	12,140	72.0	7.8	17.0	12.4	59.3	0.9	2.4	30.0
0701.0	8	COMPUTER/INFO	19,072	44.2	11.2	4.5	10.2	70.7	1.6	2.9	17.7
0703.0	4	DATA PROCESSING	35,950	51.1	13.4	9.4	6.8	60.8	1.4	3.8	18.5
0704.0	9	COMPUTER PROG	13,092	45.4	14.5	14.7	11.1	56.0	1.6	3.9	15.3
0934.0	7	ELECTRONICS	21,925	19.9	24.9	10.5	13.9	47.4	1.7	8.5	25.4
0934.2	21	IND ELECTRONICS	7,056	15.6	14.0	7.3	9.6	59.4	1.5	4.3	14.5
0948.0	26	AUTO TECH	5,324	13.4	16.6	8.2	21.9	51.1	2.2	6.2	23.1
0948.1	13	AUTO MECHANIC	10,827	8.1	15.6	8.9	17.6	52.6	1.9	5.0	22.4
0953.0	17	DRAFTING TECH	8,833	23.5	14.0	6.2	14.0	66.9	2.1	4.9	20.0
0956.0	27	MACHINE TOOL	5,309	11.6	20.0	6.0	14.7	52.7	1.5	6.9	23.1
0956.5	20	WELDING/CUTTING	7,242	7.3	8.5	9.5	15.6	62.4	2.0	4.0	16.8
1203.1	14	NURSING, RN	10,509	88.0	8.4	12.5	9.2	67.5	1.0	3.0	20.4
1203.2	30	NURSING, LVN	5,144	86.4	6.5	9.7	12.4	68.9	1.3	1.0	25.6
1305.0	24	FAMILY/CHILD DE	5,536	87.2	4.1	20.0	13.6	52.1	2.4	6.1	25.3
1305.1	10	CHILD DEVELOP	12,539	84.6	4.5	6.3	12.3	73.4	1.6	0.9	33.9
2105.0	2	ADM OF JUSTICE	38,660	28.2	4.8	10.4	16.7	65.0	0.8	1.5	15.8
2107.1	25	EARLY CHILD ED	5,356	90.0	8.7	13.3	13.5	61.0	2.6	2.8	17.2
2133.0	18	FIRE CONTROL	8,078	24.9	2.6	4.0	13.4	75.5	0.5	0.5	8.8
2133.1	23	FIRE & SAFETY	5,781	16.1	4.4	2.6	11.0	79.6	0.2	0.4	11.8
3007.0	22	COSMETOLOGY	5,925	88.8	7.3	14.2	17.1	58.4	0.8	2.1	21.3
		TOTAL, 30 ABOVE	437,081								
		% OF PART A	67%								
		TOTAL, PART A	656,990	50.8	10.2	10.0	12.8	63.6	1.6	3.2	18.3
		COMPLETERS	151,424	50.6	10.8	10.8	11.8	63.1	1.5	2.7	17.8
		TOTAL, PART B	300,165	59.4	10.3	9.6	12.2	64.7	1.2	3.6	16.3

Compiled by Carvell Education Management Planning, Inc. from printout data provided by the COCCC, 6/13/85 printout of VEA enrollment data.

Table F-2

COMPARISON OF PART A AND PART B ENROLLMENTS BY VOCATIONAL PROGRAM, 1983-84



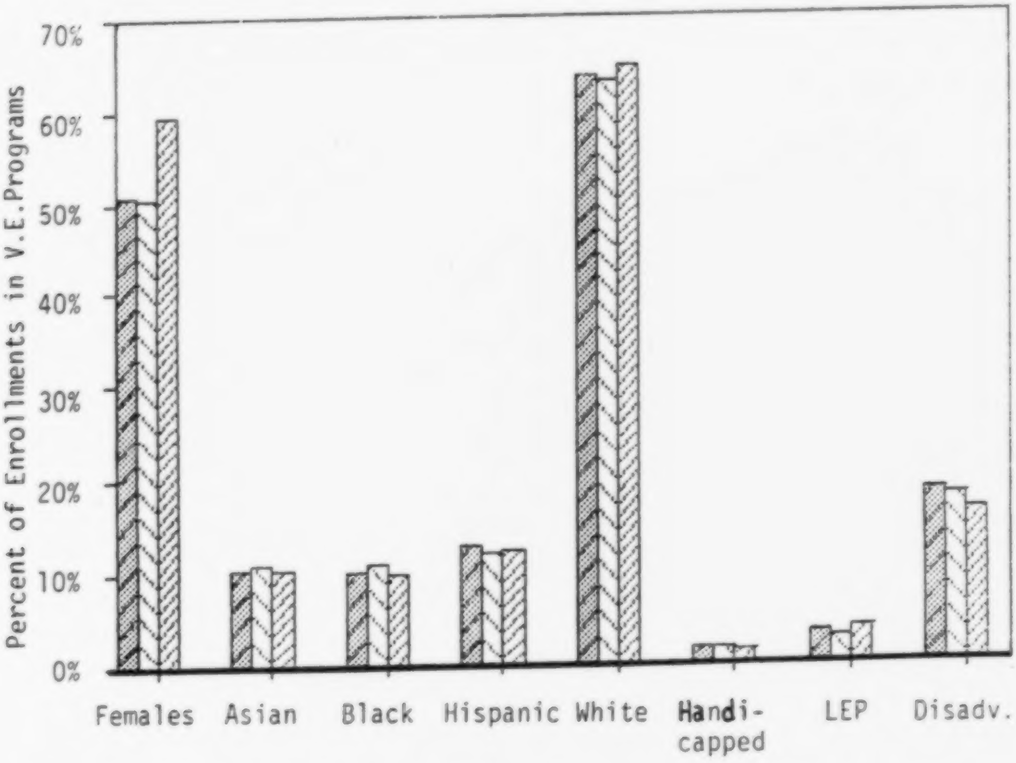
KEY for Identifying Program Areas:

01	Agriculture
02	Architecture
05	Business/Management
06	Communications
07	Computer/Data Processing
08	Special Education Technology
09	Technical Education
10	Arts--Vocational Education
12	Health Occupations
13	Home Economics/Consumer Homemaking Education
14	Legal Assisting
16	Library Assisting
19	Geology
21	Public Services
30	Personal Services

Source: VEDS Reports 1983-84, COCCC.

Table F-3

CHARACTERISITICS OF STUDENTS ENROLLED IN PART A & PART B VOCATIONAL PROGRAMS AND PART A PROGRAM COMPLETERS 1983-84



Student Socio-Characteristics

KEY:

- ▨ Part A Enrollment (Provide Job Skills, Used for Student Follow UP.)
- ▧ Part A Completers
- ▨ Part B Enrollment (Beginning Level Programs, NOT used for Student Follow-up Purposes)

Source: VEDS Reports, 1983-84, COCCC.

Table F-4

COMPARISON OF CALIFORNIA AND NATIONAL ENROLLMENTS IN COMMUNITY COLLEGES/TWO YEAR INSTITUTIONS OF HIGHER EDUCATION

Full-time and Part-time Credit Enrollment, 1983 and 1984

Enrollment in Credit Courses (Thousands)

	National Public Two-Year Institutions			California Community Colleges		
Year	Full-Time	Part-time	Total	Full-Time	Part-Time	Total
1983 -						
Number:	1,721.9	3,077.9	4,799.8	273.4	751.1	1,024.5
Percent:	36%	64%	100%	27%	73%	100%
1984 -						
Number:	1,596.1	3,106.8	4,702.9	255.8	693.3	949.2
Percent:	34%	66%	100%	27%	73%	100%

Source: AACJC Directory, 1985 and Chancellor's Report, March 1985. Compiled by Carvell Education Management Planning, Inc., June 1985.

Note: Nationally in 1976 males comprised 52% of the enrollments, by 1979 this percent had dropped to 47%; in 1972 males comprised 53% of the California enrollment in credit courses, in 1983 it was 46 percent. To date, total community college enrollments nationally peaked 1982, in California they peaked in 1981.

Source: AACJC Directory, 1985 and Chancellor's Report, March 1985. Compiled by Carvell Education Management Planning, Inc., June 1985.

Appendix G

- Highlights of Deans Survey of Practices and Trends in CCC Vocational Education Programs and Services, 1980 to 1990
- Occupational Administrators Survey Results
- Deans of Student Services Survey Results
- Occupational Administrators Survey Form
- Deans of Student Services Survey Form

HIGHLIGHTS OF OCCUPATIONAL ADMINISTRATORS SURVEY
PRACTICES AND TRENDS IN COMMUNITY COLLEGE VOCATIONAL PROGRAMS AND SERVICES, 1980 TO 1990

A written survey of Occupational Education Administrators and Student Services Administrators in California Community Colleges was conducted as part of the comprehensive study of vocational education for the COCCC. The survey was conducted in Spring 1985.

The purpose of the survey was to identify the patterns of the past five years (1980-85) and the perceived future trends (1985-90) on 60 items related to program enrollment, student characteristics, program planning and delivery modes, private sector involvement, student services, and other issues so that these perceptions could be compared with existing information and data contained in documented form in EDP records, reports and studies obtained from the COCCC and other agencies.

Survey responses were obtained from 75 of the 106 community colleges. Fifty-two (52) of the 70 districts (74%) were represented in the survey results. These districts represent 87% of the ADA generated in VE in 1983-84. Survey responses were distributed in the following geographic and size patterns:

. Northern California	29%	. VE ADA under 1000	15%
. Central California	22%	. VE ADA 1000 to 2500	29%
. Southern California	49%	. VE ADA over 2500	55%

Survey results show that over 60% of the community college occupational administrators agree about the following: (There were few items that were perceived as decreasing--see tabular results.)

1. Student enrollment trends to 1990 will be characterized by:

   . Increased total enrollments in vocational programs (66%)
   . Increased evening enrollments in vocational programs (73%)
   . Increased enrollment of disadvantaged students (69%)
   . Increased enrollment of LEP students (63%)
   . Increased enrollment of persons over age 24 (64%)
   . Increased enrollment of students with goals related to upgrading of job related skills (70%)

2. Vocational program patterns and delivery modes will be characterized by:

   . Increased use of nontraditional time schedules (80%)
   . Greater effort to modify programs for nontrad students (70%)
   . Increased use of short-term, intensive job training (87%)
   . Greater use of contract instruction in vocational ed (72%)
   . Expansion of use of computer assisted instruction (87%)
   . Stronger use of competency based instruction (87%)
   . Greater use of allowing advanced placement/credit for work taken by students at feeder schools/sister colleges (67%)

3. Key factors in program planning will be:

   - Greater use of community and employer surveys at the local level (75%)
   - More use of subject matter advisory committess for program planning (63%)
   - More use of advisory committees in program evaluation (64%)
   - Greater joint planning/articulation with high schools 84%)
   - More use of student follow up for program planning and assessment (75%)

4. Private sector involvement with vocational programs will have:

   - Greater use of foundations to generate and accept ouside funds (75%)
   - Increased use of private sector resources and funding support (74%)
   - Greater use of industry personnel as instructors (67%)
   - Greater use of industry personnel as part-time instructors to keep programs current with industry standards (69%)
   - Greater use of industry sites for offering programs (83%)
   - Use of industry/labor for curriculum development (64%)

5. Student services for vocational students will include:

   - Expanded use of assessments/testing for placing students in vocational programs (83%)
   - More emphasis on identifying student goals/objectives for taking vocational programs (64%)
   - Greater use of vocational and career counseling (91%)
   - Greater use of tutorial assistance for students (64%)
   - Great emphasis on providing job placement assistance (67%)

6. Staff development concerns will include:

   - Increased staff development for vocational instructors (88%)
   - Greater use of industry internships for instructors (72%)

7. Program promotion needs will include:

   - Greater need for program promotion by local colleges (86%).

Source: Compiled by Carvell Education Management Planning, Inc. from survey results, June 1985.

OCCUPATIONAL ADMINISTRATORS SURVEY RESULTS

SURVEY OF CURRENT PRACTICES AND FUTURE TRENDS

	INCREASE	STABLE	INCREASE	UNKNOWN	NA	TOPIC/ISSUE	INCREASE	STABLE	DECREASE	UNKNOWN	NA	
1.	21.88%	37.50%	40.63%	0.00%	0.00%	TOTAL ENROLLMENTS IN VOC ED/DAY & EV'NG	65.63%	25.00%	6.25%	3.13%	0.00%	1.
2.	21.88%	32.81%	42.19%	3.13%	0.00%	TOTAL ENROLLMENTS IN DAY VOC ED PROG	50.00%	35.94%	9.38%	4.69%	0.00%	2.
3.	32.81%	37.50%	28.13%	1.56%	0.00%	TOTAL ENROLLMENTS IN EVENING VOC ED PROG	73.44%	20.31%	3.13%	3.13%	0.00%	3.
4.	46.88%	40.63%	7.81%	4.69%	0.00%	TOTAL FEMALE ENROLLMENTS IN VOC ED PROG	51.56%	46.88%	0.00%	1.56%	0.00%	4.
5.	37.50%	42.19%	17.19%	3.13%	0.00%	TOTAL DISADV ENROLLMENTS IN VOC ED PROG	56.25%	39.06%	3.13%	1.56%	0.00%	5.
6.	25.00%	64.06%	9.38%	1.56%	0.00%	TOTAL HANDICAPPED ENROLLMENTS IN VOC PRG	40.63%	57.81%	0.00%	1.56%	0.00%	6.
7.	45.31%	42.19%	12.50%	0.00%	0.00%	TOTAL ETHNIC MINORITIES IN VOC ED PROG	68.75%	25.00%	3.13%	3.13%	0.00%	7.
8.	56.25%	31.25%	7.81%	3.13%	1.56%	TOTAL LEP STUDENTS IN VOC ED PROG	62.50%	26.56%	4.69%	6.25%	0.00%	8.
9.	12.50%	42.19%	37.50%	7.81%	0.00%	TOTAL PERSONS UNDER 25 IN VOC ED PROG	31.25%	35.94%	28.13%	4.69%	0.00%	9.
10.	54.69%	32.81%	6.25%	6.25%	0.00%	TOTAL PERSONS OVER 24 IN VOC ED PROG	64.06%	29.69%	1.56%	4.69%	0.00%	10.
11.	35.94%	35.94%	21.88%	6.25%	0.00%	NUMBER ENROLLED FOR ENTRY LEVEL SKILLS	51.56%	34.38%	7.81%	6.25%	0.00%	11.
12.	6.25%	35.94%	42.19%	14.06%	1.56%	NUMBER ENROLLED FOR AVOCATIONAL PURPOSE	7.81%	56.25%	21.88%	14.06%	0.00%	12.
13.	53.13%	32.81%	9.38%	4.69%	0.00%	NUMBER ENROLLED TO UPGRADE OCCUP SKILLS	70.31%	25.00%	1.56%	3.13%	0.00%	13.
14.	20.31%	62.50%	15.63%	1.56%	0.00%	TOTAL NUMBER OF APPRVD VOC PROG OFFERED	43.75%	48.44%	6.25%	1.56%	0.00%	14.
15.	15.63%	67.19%	12.50%	4.69%	0.00%	TOTAL NUMBER VOC PROG OFFERED DURING DAY	42.19%	46.88%	9.38%	1.56%	0.00%	15.
16.	21.88%	64.06%	9.38%	4.69%	0.00%	TOTAL NUMBER VOC PROG OFFERED DURING EVE	59.38%	39.06%	1.56%	0.00%	0.00%	16.
17.	15.63%	45.31%	10.94%	7.81%	20.31%	TOTAL NUMBER VOC PROG OFFERED ON WEEKEND	48.44%	25.00%	3.13%	9.38%	14.06%	17.
18.	42.19%	45.31%	1.56%	6.25%	4.69%	NO. VOC PROG OFFERED ON NONTRAD TIME SCH	79.69%	14.06%	0.00%	7.81%	0.00%	18.
19.	50.00%	32.81%	1.56%	3.13%	12.50%	NUMBER OF VOC PROG OFFERED-INDUST SITES	82.81%	12.50%	0.00%	0.00%	4.69%	19.
20.	50.00%	31.25%	6.25%	1.56%	10.94%	NUMBER OF VOC PROG FUNDED BY JTPA/PIC CO	51.56%	29.69%	6.25%	4.69%	7.81%	20.
21.	53.13%	31.25%	4.69%	1.56%	9.38%	NUMBER OF VOC PROG OFFERED-CONTRACT INST	71.88%	20.31%	0.00%	1.56%	6.25%	21.
22.	21.88%	42.19%	1.56%	1.56%	1.56%	USE OF COMPUTER ASSISTED INSTRUCTION	87.50%	10.94%	0.00%	1.56%	0.00%	22.
23.	10.94%	26.56%	56.25%	0.00%	6.25%	NUMBER OF STUDENTS ENROLLED IN WORK EXPE	40.63%	35.94%	12.50%	4.69%	6.25%	23.
24.	9.38%	26.56%	35.94%	9.38%	18.75%	NUMBER OF STUDENTS ENROLLED IN COOP ED	34.38%	26.56%	6.25%	17.19%	15.63%	24.
25.	31.25%	56.25%	1.56%	7.81%	3.13%	USE OF COMPETENCY BASED INSTRUCT METHODS	67.19%	25.00%	1.56%	4.69%	1.56%	25.
26.	53.13%	34.38%	4.69%	1.56%	6.25%	OFFERING OF SHORT-TERM, INTENS JOB TRNG	87.50%	9.38%	0.00%	0.00%	3.13%	26.
27.	21.88%	64.06%	6.25%	3.13%	4.69%	USE OF CONCENTRATED TIME BLOCKS FOR INST	56.25%	29.69%	6.25%	3.13%	4.69%	27.
28.	15.63%	65.63%	4.69%	7.81%	6.25%	USE OF EDD LABOR MRK INFO FOR PROG PLNG	35.94%	48.44%	4.69%	4.69%	6.25%	28.
29.	35.94%	57.81%	0.00%	4.69%	1.56%	USE OF LOCAL/COLL SURVEY COMMUN EMPLRS	75.00%	20.31%	0.00%	3.13%	1.56%	29.
30.	42.19%	57.81%	0.00%	0.00%	0.00%	USE OF SUBJ ADV COM FOR PROG PLNG & REV	62.50%	35.94%	0.00%	1.56%	0.00%	30.
31.	28.13%	64.06%	3.13%	1.56%	3.13%	USE OF SUBJ ADV COM FOR PROG EVALUATION	64.06%	35.94%	0.00%	0.00%	0.00%	31.
32.	14.06%	59.38%	12.50%	1.56%	12.50%	USE OF GNL VOC AD COM FOR PRO PLNG & REV	35.94%	34.38%	17.19%	1.56%	10.94%	32.
33.	32.81%	54.69%	7.81%	3.13%	1.56%	JOINT PLANNING WITH LOCAL FEEDER SCHOOLS	84.38%	12.50%	0.00%	1.56%	1.56%	33.
34.	26.56%	60.94%	1.56%	4.69%	6.25%	GIVING CR/ADV PLCMT FOR TRNG AT FEEDER S	67.19%	26.56%	1.56%	1.56%	3.13%	34.
35.	12.50%	53.13%	6.25%	9.38%	18.75%	JOINT PLNG/COORDIN WITH ADULT PROGRAMS	46.88%	26.56%	0.00%	10.94%	15.63%	35.
36.	40.63%	10.94%	17.19%	7.81%	23.44%	OFFERING OF NONCREDIT VOC PROGRAMS	32.81%	29.69%	9.38%	9.38%	18.75%	36.
37.	46.88%	31.25%	3.13%	4.69%	14.06%	USE OF COL FOUNDAT TO ACCEPT FUNDS,EQUIP	75.00%	14.06%	0.00%	1.56%	9.38%	37.
38.	51.56%	45.31%	0.00%	3.13%	0.00%	CONTRIB OF FIN/OTHER RES FROM BUS/IND/LA	73.44%	23.44%	0.00%	3.13%	0.00%	38.
39.	34.38%	54.69%	3.13%	0.00%	7.81%	USE OF INDUST PERSONNEL FOR INSTRUCTORS	67.19%	29.69%	0.00%	1.56%	1.56%	39.
40.	46.88%	37.50%	10.94%	1.56%	3.13%	USE OF PART-TIME INSTR TO OFFSET COSTS	45.31%	45.31%	1.56%	4.69%	3.13%	40.
41.	37.50%	56.25%	4.69%	1.56%	0.00%	USE OF PT INSTRUCT FOR CURRENCY WITH IND	68.75%	26.56%	1.56%	3.13%	0.00%	41.
42.	15.63%	39.06%	45.31%	0.00%	0.00%	REPL OF RETIR/LEAVING VOC ED STAFF	29.69%	53.13%	14.06%	3.13%	0.00%	42.
43.	26.56%	60.94%	4.69%	4.69%	3.13%	USE OF IND/LABOR IN CURRIC DEVELOPMENT	64.06%	31.25%	0.00%	4.69%	0.00%	43.
44.	29.69%	45.31%	12.50%	4.69%	7.81%	DISTRICT/COLLEGE REPRES ON PICs	26.56%	56.25%	6.25%	6.25%	4.69%	44.
45.	48.44%	37.50%	4.69%	0.00%	9.38%	USE OF ASSESSM & TEST FOR PROG PLCMT	82.81%	14.06%	1.56%	1.56%	0.00%	45.
46.	20.31%	54.69%	4.69%	10.94%	9.38%	ID OF STUDENT OBJ FOR PROG ENROLLMENT	64.06%	23.44%	0.00%	10.94%	1.56%	46.
47.	14.06%	43.75%	10.94%	17.19%	14.06%	ID OF STUDENT EMPLOY STATUS AT PROG ENTR	20.31%	60.94%	0.00%	14.06%	4.69%	47.
48.	31.25%	59.38%	7.81%	1.56%	0.00%	USE OF VOC/CAREER COUNSELING SERVICES	90.63%	6.25%	1.56%	1.56%	0.00%	48.
49.	23.44%	54.69%	7.81%	7.81%	6.25%	MODIF OF INSTRUC AS STUDENT CHAR CHANGE	70.31%	20.31%	0.00%	4.69%	4.69%	49.
50.	32.81%	62.50%	3.13%	1.56%	0.00%	USE OF FIN AID SERVICES FOR VOC ED STUDE	39.06%	53.13%	6.25%	1.56%	0.00%	50.
51.	21.88%	53.13%	15.63%	4.69%	4.69%	PROV OF JOB PLCMT SERV OTHER THAN PT JOB	67.19%	25.00%	1.56%	4.69%	1.56%	51.
52.	15.63%	56.25%	17.19%	3.13%	7.81%	DIFFIC OF PLACING STUDENTS FROM VOC PROG	20.31%	45.31%	18.75%	7.81%	7.81%	52.
53.	23.44%	56.25%	9.38%	3.13%	7.81%	USE OF STUDENT FOL UP FOR PROG PLNG & AS	75.00%	14.06%	0.00%	6.25%	4.69%	53.
54.	46.88%	45.31%	6.25%	0.00%	1.56%	TUT/REMED PROG FOR VOC ED STUDENTS	64.06%	32.81%	1.56%	0.00%	1.56%	54.
55.	37.50%	54.69%	4.69%	1.56%	1.56%	VOC PROG PROMOT EFFORTS BY COLLEGE	85.94%	12.50%	0.00%	1.56%	0.00%	55.
56.	18.75%	65.63%	7.81%	4.69%	3.13%	VOC ED EMPHASIS COMPARED TO JOB TRNG	42.19%	42.19%	7.81%	4.69%	3.13%	56.
57.	12.50%	65.63%	18.75%	3.13%	0.00%	BUDG FOR VOC ED RELAT TO OTHER CRED PROG	29.69%	57.81%	9.38%	3.13%	0.00%	57.
58.	14.06%	31.25%	53.13%	1.56%	0.00%	BUDG FOR EQUIP UPDATING, MAINTENANCE	48.44%	25.00%	15.63%	10.94%	0.00%	58.
59.	50.00%	40.63%	9.38%	0.00%	0.00%	NEED FOR STAFF DEVELOPMENT	87.50%	12.50%	0.00%	0.00%	0.00%	59.
60.	20.31%	42.19%	14.06%	4.69%	18.75%	STAFF DEVELOPM THRU INDUST INTERNSHIP	71.88%	20.31%	0.00%	4.69%	3.13%	60.
61.	31.25%	35.94%	3.13%	21.88%	7.81%	NEED FOR NEW VOCATIONAL PROGRAMS	53.13%	15.63%	0.00%	26.56%	4.69%	61.

STUDENT SERVICES DEANS RESPONSES

	INCREASE	STABLE	DECREASE	UNKNOWN	NA	TOPIC/ISSUE	INCREASE	STABLE	DECREASE	UNKNOWN	NA	
1.	55.56%	22.22%	11.11%	11.11%	0.00%	TOTAL ENROLLMENTS IN VOC ED/DAY & EV'NG	55.56%	33.33%	11.11%	0.00%	0.00%	1.
2.	22.22%	44.44%	11.11%	22.22%	0.00%	TOTAL ENROLLMENTS IN DAY VOC ED PROG	33.33%	55.56%	0.00%	11.11%	0.00%	2.
3.	33.33%	33.33%	11.11%	22.22%	0.00%	TOTAL ENROLLMENTS IN EVENING VOC ED PROG	33.33%	44.44%	11.11%	11.11%	0.00%	3.
4.	66.67%	11.11%	0.00%	22.22%	0.00%	TOTAL FEMALE ENROLLMENTS IN VOC ED PROG	44.44%	44.44%	0.00%	11.11%	0.00%	4.
5.	33.33%	33.33%	0.00%	33.33%	0.00%	TOTAL DISADV ENROLLMENTS IN VOC ED PROG	33.33%	33.33%	11.11%	22.22%	0.00%	5.
6.	44.44%	22.22%	11.11%	22.22%	0.00%	TOTAL HANDICAPPED ENROLLMENTS IN VOC PROG	55.56%	22.22%	11.11%	11.11%	0.00%	6.
7.	44.44%	33.33%	0.00%	22.22%	0.00%	TOTAL ETHNIC MINORITIES IN VOC ED PROG	22.22%	55.56%	11.11%	11.11%	0.00%	7.
8.	44.44%	22.22%	0.00%	22.22%	11.11%	TOTAL LEP STUDENTS IN VOC ED PROG	33.33%	44.44%	0.00%	11.11%	11.11%	8.
9.	22.22%	22.22%	22.22%	33.33%	0.00%	TOTAL PERSONS UNDER 25 IN VOC ED PROG	33.33%	33.33%	22.22%	11.11%	0.00%	9.
10.	33.33%	33.33%	0.00%	33.33%	0.00%	TOTAL PERSONS OVER 24 IN VOC ED PROG	33.33%	44.44%	11.11%	11.11%	0.00%	10.
11.	22.22%	44.44%	11.11%	22.22%	0.00%	NUMBER ENROLLED FOR ENTRY LEVEL SKILLS	66.67%	11.11%	11.11%	11.11%	0.00%	11.
13.	55.56%	22.22%	11.11%	11.11%	0.00%	NUMBER ENROLLED TO UPGRADE OCCUP SKILLS	55.56%	22.22%	11.11%	11.11%	0.00%	13.
14.	33.33%	55.56%	0.00%	11.11%	0.00%	TOTAL NUMBER OF APPRVD VOC PROG OFFERED	33.33%	44.44%	11.11%	11.11%	0.00%	14.
15.	33.33%	44.44%	0.00%	22.22%	0.00%	TOTAL NUMBER VOC PROG OFFERED DURING DAY	44.44%	33.33%	0.00%	22.22%	0.00%	15.
16.	22.22%	55.56%	0.00%	22.22%	0.00%	TOTAL NUMBER VOC PROG OFFERED DURING EVE	22.22%	44.44%	11.11%	22.22%	0.00%	16.
17.	22.22%	22.22%	11.11%	22.22%	22.22%	TOTAL NUMBER VOC PROG OFFERED ON WEEKENDS	33.33%	22.22%	0.00%	11.11%	33.33%	17.
20.	55.56%	11.11%	11.11%	11.11%	11.11%	NUMBER OF VOC PROG FUNDED BY JTPA/PIC CONT	66.67%	11.11%	11.11%	11.11%	0.00%	18.
21.	33.33%	33.33%	0.00%	22.22%	11.11%	NUMBER OF VOC PROG OFFERED-CONTRACT INSTR	55.56%	11.11%	33.33%	0.00%	0.00%	19.
22.	88.89%	0.00%	0.00%	11.11%	0.00%	USE OF COMPUTER ASSISTED INSTRUCTION	88.89%	0.00%	0.00%	0.00%	0.00%	20.
23.	22.22%	22.22%	44.44%	11.11%	0.00%	NUMBER OF STUDENTS ENROLLED IN WORK EXPERE	44.44%	33.33%	11.11%	11.11%	0.00%	21.
25.	33.33%	33.33%	0.00%	22.22%	11.11%	USE OF COMPETENCY BASED INSTRUCT METHODS	44.44%	33.33%	0.00%	22.22%	0.00%	22.
26.	44.44%	33.33%	0.00%	11.11%	11.11%	OFFERING OF SHORT-TERM, INTENS JOB TRNG	44.44%	33.33%	11.11%	11.11%	0.00%	23.
27.	33.33%	33.33%	0.00%	11.11%	22.22%	USE OF CONCENTRATED TIME BLOCKS FOR INSTR	11.11%	33.33%	22.22%	22.22%	11.11%	24.
33.	44.44%	44.44%	0.00%	11.11%	0.00%	JOINT PLANNING WITH LOCAL FEEDER SCHOOLS	55.56%	44.44%	0.00%	0.00%	0.00%	25.
34.	11.11%	55.56%	0.00%	11.11%	22.22%	GIVING CR/ADV PLCMT FOR TRNG AT FEEDER SCHL	11.11%	55.56%	11.11%	11.11%	11.11%	26.
35.	0.00%	66.67%	0.00%	11.11%	22.22%	JOINT PLNG/COORDIN WITH ADULT PROGRAMS	22.22%	33.33%	0.00%	22.22%	22.22%	27.
36.	11.11%	33.33%	11.11%	11.11%	33.33%	OFFERING OF NONCREDIT VOC PROGRAMS	22.22%	22.22%	11.11%	0.00%	44.44%	28.
39.	33.33%	44.44%	0.00%	22.22%	0.00%	USE OF INDUST PERSONNEL FOR INSTRUCTORS	55.56%	11.11%	22.22%	11.11%	0.00%	29.
41.	33.33%	55.56%	0.00%	11.11%	0.00%	USE OF PT INSTRUCT FOR CURRENCY WITH INDUS	44.44%	33.33%	11.11%	11.11%	0.00%	30.
43.	33.33%	55.56%	0.00%	11.11%	0.00%	USE OF IND/LABOR IN CURRIC DEVELOPMENT	44.44%	55.56%	0.00%	0.00%	0.00%	31.
44.	33.33%	44.44%	0.00%	11.11%	11.11%	DISTRICT/COLLEGE REPRES ON PICs	11.11%	77.78%	0.00%	11.11%	0.00%	32.
45.	55.56%	22.22%	0.00%	11.11%	11.11%	USE OF ASSESSM & TEST FOR PROG PLCMT	100.00%	0.00%	0.00%	0.00%	0.00%	33.
46.	55.56%	22.22%	0.00%	11.11%	11.11%	ID OF STUDENT OBJ FOR PROG ENROLLMENT	77.78%	11.11%	0.00%	11.11%	0.00%	34.
47.	11.11%	66.67%	0.00%	11.11%	11.11%	ID OF STUDENT EMPLOY STATUS AT PROG ENTRY	44.44%	44.44%	0.00%	11.11%	0.00%	35.
48.	66.67%	22.22%	0.00%	11.11%	0.00%	USE OF VOC/CAREER COUNSELING SERVICES	100.00%	0.00%	0.00%	0.00%	0.00%	36
49.	33.33%	33.33%	0.00%	33.33%	0.00%	MODIF OF INSTRUC AS STUDENT CHAR CHANGE	44.44%	22.22%	0.00%	33.33%	0.00%	37.
50.	55.56%	33.33%	0.00%	11.11%	0.00%	USE OF FIN AID SERVICES FOR VOC ED STUDENTS	66.67%	22.22%	0.00%	11.11%	0.00%	38.
51.	33.33%	33.33%	11.11%	11.11%	11.11%	PROV OF JOB PLCMT SERV OTHER THAN PT JOBS	66.67%	33.33%	0.00%	0.00%	0.00%	39.
52.	0.00%	66.67%	0.00%	33.33%	0.00%	DIFFIC OF PLACING STUDENTS FROM VOC PROG	22.22%	44.44%	11.11%	22.22%	0.00%	40.
53.	11.11%	55.56%	0.00%	11.11%	22.22%	USE OF STUDENT FOL UP FOR PROG PLNG & ASSESS	44.44%	33.33%	11.11%	11.11%	0.00%	41.
54.	55.56%	33.33%	0.00%	11.11%	0.00%	TUT/REMED PROG FOR VOC ED STUDENTS	55.56%	33.33%	0.00%	11.11%	0.00%	42.
59.	55.56%	33.33%	0.00%	11.11%	0.00%	NEED FOR STAFF DEVELOPMENT	66.67%	22.22%	11.11%	0.00%	0.00%	43.
61.	33.33%	11.11%	0.00%	55.56%	0.00%	NEED FOR NEW VOCATIONAL PROGRAMS	33.33%	11.11%	11.11%	44.44%	0.00%	44.

CALIFORNIA COMMUNITY COLLEGE ADMINISTRATORS OF OCCUPATIONAL EDUCATION
for the Comprehensive Vocational Education Study

CURRENT PRACTICES AND FUTURE TRENDS SURVEY

Name:____

Your Position:______________________________________

District:________________________ College:______________

Your Mailing Address: ____________________________________

____

Telephone: Zip __________ ________________ Ext.______

If you are a district administrator with more than one college, how many colleges in the district? _____ (As a district administrator, answer this survey for the whole district. If a college administrator, answer for your college only.)

District/College Location in State: ____Northern ___Central ___Southern

Total Day/Evening ADA in District/College: ____Under 2001 _____2001-4000 _____4001-6000 _____6001-8000 _____8001-10000 _____ Over 10000

Total District/College ADA in Vocational Education Programs: _____Under 501 _____501-1000 _____1001-1500 _____1501-2000 _____2001-2500 ____Over 2500

The objective of this survey is to obtain information from local vocational program administrators about recent practices (since 1980) and future trends (to 1990) having probable impact on their community college vocational programs.

DIRECTIONS: This survey is part of the field contact being made for a comprehensive study of vocational education in California community colleges. The goal of the study is to identify, inventory, describe, and assess information about vocational programs, students, services and trends affecting current and future delivery and quality of such programs.

PLEASE RETURN THIS FORM COMPLETED TO THE STUDY TEAM AS INSTRUCTED DURING THE CONFERENCE. IF NECESSARY, USE THE SELF-ADDRESSED ENVELOPE TO RETURN YOUR COMPLETED FORM BY APRIL 15, 1985. YOUR COOPERATION AND PARTICIPATION IS OF GREAT IMPORTANCE TO THIS STUDY AND THE PLANNING PROCESS RELATED TO THE MISSION STUDY.

Current Practices and Future Trends Survey, continued

READ EACH STATEMENT and in the left hand column indicate the extent to which it has applied to your college/district vocational programs since 1980. Then, in the right hand column indicate whether you believe it will affect your vocational programs during the next five years (by 1990). Use the following scale to provide your best response to each statement. Circle the answer for both current and future responses.

+ Increase by MORE than FIVE PERCENT (5%)
= Stable (No rise or fall greater than 5%)
- Decrease by MORE than FIVE PERCENT (5%)
? Don't Know
NA Not Applicable to your college/district

Since 1980	Topic/Issue	By 1990
+ = - ? NA	1. TOTAL ENROLLMENTS (day/evening) IN VOC. PROG.	+ = - ? NA
+ = - ? NA	2. TOTAL ENROLLMENTS IN DAY VOCATIONAL PROGRAMS	+ = - ? NA
+ = - ? NA	3. TOTAL ENROLLMENTS IN EVENING VOC. PROGRAMS	+ = - ? NA
+ = - ? NA	4. TOTAL FEMALE ENROLLMENTS IN VOCATIONAL PROG.	+ = - ? NA
+ = - ? NA	5. TOTAL DISADVANTAGED ENROLLMENTS IN VOC. PROG.	+ = - ? NA
+ = - ? NA	6. TOTAL HANDICAPPED ENROLLMENTS IN VOC. PROG.	+ = - ? NA
+ = - ? NA	7. TOTAL ETHNIC MINORITIES IN VOCATIONAL PROG.	+ = - ? NA
+ = - ? NA	8. TOTAL LIMITED ENGLISH STUDENTS IN VOC. PROG.	+ = - ? NA
+ = - ? NA	9. TOTAL PERSONS UNDER 25 ENROLLED IN VOC. PROG.	+ = - ? NA
+ = - ? NA	10. NUMBER PERSONS OVER 24 ENROLLED IN VOC. PROG.	+ = - ? NA
+ = - ? NA	11. NUMBER ENROLLED TO GAIN ENTRY LEVEL SKILLS	+ = - ? NA
+ = - ? NA	12. NUMBER ENROLLED FOR AVOCATIONAL PURPOSES	+ = - ? NA
+ = - ? NA	13. NUMBER ENROLLED TO UPGRADE OCCUPATIONAL SKILLS	+ = - ? NA
+ = - ? NA	14. TOTAL NUMBER OF APPROVED VOC. PROGRAMS OFFERED	+ = - ? NA
+ = - ? NA	15. TOTAL NUMBER VOC. PROG. OFFERED DURING DAY	+ = - ? NA
+ = - ? NA	16. TOTAL NUMBER VOC. PROG. OFFERED DURING EVENING	+ = - ? NA
+ = - ? NA	17. TOTAL NUMBER VOC. PROG. OFFERED ON WEEKENDS	+ = - ? NA

+ = - ? NA	18.	NUMBER OF VOC. PROG. OFFERED ON NONTRADITIONAL TIME SCHEDULES--FULL DAYS, REDUCED WEEKS, ETC.	+ = - ? NA
+ = - ? NA	19.	NUMBER OF VOC. PROG. OFFERED ON INDUSTRY SITES	+ = - ? NA
+ = - ? NA	20.	NUMBER OF VOC. PROG. FUNDED BY JTPA/PIC CONTRACTS	+ = - ? NA
+ = - ? NA	21.	NUMBER OF VOC. PROG. OFFERED BY CONTRACTED INSTR.	+ = - ? NA
+ = - ? NA	22.	USE OF COMPUTER ASSISTED INSTRUCTION	+ = - ? NA
+ = - ? NA	23.	NUMBER OF STUDENTS ENROLLED IN WORK EXPERIENCE	+ = - ? NA
+ = - ? NA	24.	NUMBER OF STUDENTS ENROLLED IN COOP. EDUCATION	+ = - ? NA
+ = - ? NA	25.	USE OF COMPETENCY BASED INSTRUCTION METHODS	+ = - ? NA
+ = - ? NA	26.	OFFERINGS OF SHORT-TERM, INTENSIVE JOB TRAINING	+ = - ? NA
+ = - ? NA	27.	USE OF CONCENTRATED TIME BLOCKS (5 OR MORE HOURS OF INSTRUCTION PER DAY IN A COURSE)	+ = - ? NA
+ = - ? NA	28.	USE OF EDD LABOR MARKET INFORMATION FOR PROGRAM PLANNING	+ = - ? NA
+ = - ? NA	29.	USE OF LOCAL/COLLEGE SURVEYS OF COMMUNITY OR EMPLOYERS FOR PROGRAM PLANNING	+ = - ? NA
+ = - ? NA	30.	USE OF SUBJECT MATTER ADVISORY COMMITTEES FOR PROGRAM PLANNING AND IMPROVEMENT	+ = - ? NA
+ = - ? NA	31.	USE OF SUBJECT MATTER ADVISORY COMMITTEES FOR PROGRAM EVALUATION	+ = - ? NA
+ = - ? NA	32.	USE OF GENERAL VOCATIONAL ADVISORY COMMITTEES FOR PROGRAM PLANNING AND REVIEW	+ = - ? NA
+ = - ? NA	33.	JOINT PLANNING WITH LOCAL FEEDER SCHOOLS	+ = - ? NA
+ = - ? NA	34.	GIVING CREDIT/ADVANCED PLACEMENT FOR PREVIOUS TRAINING GIVEN BY FEEDER SCHOOLS	+ = - ? NA
+ = - ? NA	35.	JOINT PLANNING/COORDINATION WITH ADULT PROGRAMS	+ = - ? NA
+ = - ? NA	36.	OFFERINGS OF NONCREDIT VOCATIONAL PROGRAMS	+ = - ? NA
+ = - ? NA	37.	USE OF COLLEGE FOUNDATIONS TO ACCEPT FUNDS, EQUIPMENT, & SUPPLIES FOR VOCATIONAL PROG.	+ = - ? NA
+ = - ? NA	38.	CONTRIBUTION OF FINANCIAL OR OTHER RESOURCES FROM BUSINESS, INDUSTRY AND/OR LABOR GROUPS	+ = - ? NA
+ = - ? NA	39.	USE OF INDUSTRY PERSONNEL FOR INSTRUCTORS	+ = - ? NA

+ = - ? NA	40. USE OF PART-TIME INSTRUCTORS TO OFFSET COSTS	+ = - ? NA
+ = - ? NA	41. USE OF PART-TIME INSTRUCTORS TO PROVIDE CURRENCY WITH INDUSTRY METHODS	+ = - ? NA
+ = - ? NA	42. REPLACEMENT OF RETIRING/LEAVING VOC. STAFF	+ = - ? NA
+ = - ? NA	43. USE OF INDUSTRY/LABOR IN CURRICULUM DEVELOPMENT	+ = - ? NA
+ = - ? NA	44. DISTRICT/COLLEGE REPRESENTED ON PICs	+ = - ? NA
+ = - ? NA	45. USE OF ASSESSMENT & TESTING FOR PROG. PLACEMENT	+ = - ? NA
+ = - ? NA	46. IDENTIFICATION OF STUDENT OBJECTIVES FOR PROG. ENROLLMENT	+ = - ? NA
+ = - ? NA	47. IDENTIFICATION OF STUDENT EMPLOYMENT STATUS AT PROGRAM ENTRY	+ = - ? NA
+ = - ? NA	48. USE OF VOCATIONAL/CAREER COUNSELING SERVICES	+ = - ? NA
+ = - ? NA	49. MODIFICATION OF INSTRUCTIONAL METHODS AS STUDENT CHARACTERISTICS CHANGE	+ = - ? NA
+ = - ? NA	50. USE OF FINANCIAL AID SERVICES FOR V.E. STUDENTS	+ = - ? NA
+ = - ? NA	51. PROVISION OF JOB PLACEMENT SERVICES BY COLLEGE FOR OTHER THAN PART-TIME JOBS WHILE IN SCHOOL	+ = - ? NA
+ = - ? NA	52. DIFFICULTY OF PLACING STUDENTS FROM VOC. PROG.	+ = - ? NA
+ = - ? NA	53. USE OF STUDENT FOLLOW-UP SURVEYS (BEYOND VEA REQUIREMENTS) FOR PROGRAM PLANNING & ASSESSMENT	+ = - ? NA
+ = - ? NA	54. TUTORIAL/REMEDIAL PROGRAMS FOR V.E. STUDENTS	+ = - ? NA
+ = - ? NA	55. VOCATIONAL PROGRAM PROMOTION EFFORTS BY COLLEGE	+ = - ? NA
+ = - ? NA	56. VOCATIONAL ED. EMPHASIS COMPARED TO JOB TRAINING	+ = - ? NA
+ = - ? NA	57. BUDGET FOR VOC. ED. RELATIVE TO OTHER CREDIT PROGRAMS	+ = - ? NA
+ = - ? NA	58. BUDGET FOR EQUIPMENT UPDATING, MAINTENANCE	+ = - ? NA
+ = - ? NA	59. NEED FOR STAFF DEVELOPMENT	+ = - ? NA
+ = - ? NA	60. STAFF DEVELOPMENT THROUGH INDUSTRY INTERNSHIP	+ = - ? NA
+ = - ? NA	61. NEED FOR NEW VOC. PROGRAMS: (what) ____________	+ = - ? NA
+ = - ? NA	62. OTHER NEEDS:(what)____________________________	+ = - ? NA

CCC DEANS OF STUDENT **SERVICES**

Current Practices and Future Trends Survey, continued

READ EACH STATEMENT and in the left hand column indicate the extent to which it has applied to your college/district vocational programs since 1980. Then, in the right hand column indicate whether you believe it will affect your vocational programs during the next five years (by 1990). Use the following scale to provide your best response to each statement. Circle the answer for both current and future responses.

+ Increase by MORE than FIVE PERCENT (5%)
= Stable (No rise or fall greater than 5%)
- Decrease by MORE than FIVE PERCENT (5%)
? Don't Know
NA Not Applicable to your college/district

Since 1980	Topic/Issue	By 1990
+ = - ? NA	1. TOTAL ENROLLMENTS (day/evening) IN VOC. PROG.	+ = - ? NA
+ = - ? NA	2. TOTAL ENROLLMENTS IN DAY VOCATIONAL PROGRAMS	+ = - ? NA
+ = - ? NA	3. TOTAL ENROLLMENTS IN EVENING VOC. PROGRAMS	+ = - ? NA
+ = - ? NA	4. TOTAL FEMALE ENROLLMENTS IN VOCATIONAL PROG.	+ = - ? NA
+ = - ? NA	5. TOTAL DISADVANTAGED ENROLLMENTS IN VOC. PROG.	+ = - ? NA
+ = - ? NA	6. TOTAL HANDICAPPED ENROLLMENTS IN VOC. PROG.	+ = - ? NA
+ = - ? NA	7. TOTAL ETHNIC MINORITIES IN VOCATIONAL PROG.	+ = - ? NA
+ = - ? NA	8. TOTAL LIMITED ENGLISH STUDENTS IN VOC. PROG.	+ = - ? NA
+ = - ? NA	9. TOTAL PERSONS UNDER 25 ENROLLED IN VOC. PROG.	+ = - ? NA
+ = - ? NA	10. NUMBER PERSONS OVER 24 ENROLLED IN VOC. PROG.	+ = - ? NA
+ = - ? NA	11. NUMBER ENROLLED TO GAIN ENTRY LEVEL SKILLS	+ = - ? NA
+ = - ? NA	12. NUMBER ENROLLED TO GAIN BASIC EDUC. SKILLS	+ = - ? NA
+ = - ? NA	13. NUMBER ENROLLED TO UPGRADE OCCUPATIONAL SKILLS	+ = - ? NA
+ = - ? NA	14. TOTAL NUMBER OF APPROVED VOC. PROGRAMS OFFERED	+ = - ? NA
+ = - ? NA	15. TOTAL NUMBER VOC. PROG. OFFERED DURING DAY	+ = - ? NA
+ = - ? NA	16. TOTAL NUMBER VOC. PROG. OFFERED DURING EVENING	+ = - ? NA
+ = - ? NA	17. TOTAL NUMBER VOC. PROG. OFFERED ON WEEKENDS	+ = - ? NA

Since 1980		Topic/Issue	By 1990
+ = - ? NA	18.	NUMBER OF VOC. PROG. FUNDED BY JTPA/PIC CONTRACTS	+ = - ? NA
+ = - ? NA	19.	NUMBER OF VOC. PROG. OFFERED BY CONTRACTED INSTR.	+ = - ? NA
+ = - ? NA	20.	USE OF COMPUTER ASSISTED INSTRUCTION in VOC. ED.	+ = - ? NA
+ = - ? NA	21.	NUMBER OF STUDENTS ENROLLED IN WORK EXPERIENCE	+ = - ? NA
+ = - ? NA	22.	USE OF COMPETENCY BASED INSTRUCTION METHODS	+ = - ? NA
+ = - ? NA	23.	OFFERINGS OF SHORT-TERM, INTENSIVE JOB TRAINING	+ = - ? NA
+ = - ? NA	24.	USE OF CONCENTRATED TIME BLOCKS (5 OR MORE HOURS OF INSTRUCTION PER DAY IN A COURSE)	+ = - ? NA
+ = - ? NA	25.	JOINT PLANNING WITH LOCAL FEEDER SCHOOLS	+ = - ? NA
+ = - ? NA	26.	GIVING CREDIT/ADVANCED PLACEMENT FOR PREVIOUS TRAINING GIVEN BY FEEDER SCHOOLS	+ = - ? NA
+ = - ? NA	27.	JOINT PLANNING/COORDINATION WITH ADULT PROGRAMS	+ = - ? NA
+ = - ? NA	28.	OFFERINGS OF NONCREDIT VOCATIONAL PROGRAMS	+ = - ? NA
+ = - ? NA	29.	USE OF INDUSTRY PERSONNEL FOR INSTRUCTORS	+ = - ? NA
+ = - ? NA	30.	USE OF PART-TIME INSTRUCTORS TO PROVIDE CURRENCY WITH INDUSTRY METHODS	+ = - ? NA
+ = - ? NA	31.	USE OF INDUSTRY/LABOR IN CURRICULUM DEVELOPMENT	+ = - ? NA
+ = - ? NA	32.	DISTRICT/COLLEGE REPRESENTED ON PICs	+ = - ? NA
+ = - ? NA	33.	USE OF ASSESSMENT & TESTING FOR PROG. PLACEMENT	+ = - ? NA
+ = - ? NA	34.	IDENTIFICATION OF STUDENT OBJECTIVES FOR PROG. ENROLLMENT	+ = - ? NA
+ = - ? NA	35.	IDENTIFICATION OF STUDENT EMPLOYMENT STATUS AT PROGRAM ENTRY	+ = - ? NA
+ = - ? NA	36.	USE OF VOCATIONAL/CAREER COUNSELING SERVICES	+ = - ? NA
+ = - ? NA	37.	MODIFICATION OF INSTRUCTIONAL METHODS AS STUDENT CHARACTERISTICS CHANGE	+ = - ? NA

Continue on Back

Since 1980	Topic/Issue	By 1990
+ = - ? NA	38. USE OF FINANCIAL AID SERVICES FOR V.E. STUDENTS	+ = - ? NA
+ = - ? NA	39. PROVISION OF JOB PLACEMENT SERVICES BY COLLEGE FOR OTHER THAN PART-TIME JOBS WHILE IN SCHOOL	+ = - ? NA
+ = - ? NA	40. DIFFICULTY OF PLACING STUDENTS FROM VOC. PROG.	+ = - ? NA
+ = - ? NA	41. USE OF STUDENT FOLLOW-UP SURVEYS (BEYOND VEA REQUIREMENTS) FOR PROGRAM PLANNING & ASSESSMENT	+ = - ? NA
+ = - ? NA	42. TUTORIAL/REMEDIAL PROGRAMS FOR V.E. STUDENTS	+ = - ? NA
+ = - ? NA	43. NEED FOR VOC. EDUC. STAFF DEVELOPMENT	+ = - ? NA
+ = - ? NA	44. NEED FOR NEW VOC. PROGRAMS: (what)__________	+ = - ? NA
+ = - ? NA	45. OTHER NEEDS:(what)____________________	+ = - ? NA
+ = - ? NA	____________________	+ = - ? NA

In your judgment is there an exemplary program in a community college in which student services and vocational programs are especially well linked or coordinated? If YES, please provided the following information so that further contact can be made by the study team.

NAME OF COLLEGE ____

Name and Title of Contact Person from whom more information can be obtained.

NAME:______________________________ Title:__________________

Mailing Address:

____

____

Telephone No. ____

BRIEF DESCRIPTION OF THE EXEMPLARY PROGRAM OR LINKAGE BETWEEN VOC. ED. AND STUDENT SERVICES: (Use additional sheets as necessary)

Appendix H

CALIFORNIA COMMUNITY COLLEGE
VOCATIONAL EDUCATION ENROLLMENTS AND CONTACT HOURS IN COURSES GENERATING ADA, 1983 84

- Description of the Process
- Definitions
- Table H-1 Summary of Credit & Noncredit Vocational Enrollments and Contact Hours, 1983-84
- Table H-2 Individual Summaries by Discipline
- Table H-3 12 Largest Vocational Programs in Terms of Contact Hours

Source: Computer tapes supplied by the COCCC for VEDS data (6/13/85) and for course inventory data (5/20/85) and compiled by Carvell Education Management Planning, Inc., July 1985.

CALIFORNIA COMMUNITY COLLEGE VOCATIONAL EDUCATION ENROLLMENTS COMPARED TO CONTACT HOURS IN ADA GENERATING COURSES

In order to understand the impact of enrollments in vocational education on the community college system as a whole an effort was made to compare enrollments in vocational education courses to the contact hours generated in those courses. Although the two tapes for VEA data and course activity data were not compatible and could not be merged, data could be compared from each printout.

First, each five digit program designated as vocational was summarized by enrollment and contact hours. This resulted in data for 314 separate programs. These data are included on the following tables. Once data were summarized by five digit TOP (taxonomy of programs) designation, data were totaled to give the hours and enrollments for the two digit TOP--the broad disciplinary area, such as 01-Agriculture, 02-Architecture, and so on.

As a result, it could be determined that about 35% of the hours and 75% of the enrollments in the California community colleges in 1983-84 were in vocational courses/programs. This does not include the 9999.00 TOP, a classification that does not fit any currently designated TOP. Some of these enrollments are undoubtedly vocational, as are some of the hours generated.

Definitions used are summarized on an accompanying sheet. These data should be examined to help clarify concentrations of hours, enrollments and where data may need to be improved because of contradictions in data, such as 0112.3, pest control, in which enrollments exceed hours generated.

Included in the tables is one which shows the 12 largest vocational programs in terms of hours generated for ADA purposes. As can be seen 4 of these programs are in the business area, 3 in the computer science area and 2 in the technical area. Thus, 9 of the largest programs are in the 3 areas that account for 60% of the hours generated in vocational programs and 2/3 of the enrollments.

For one wanting to plan vocational programs at an individual college these data should be helpful in describing the magnitude of the effort already in process in the State.

DEFINITIONS FOR THE
SUMMARY CREDIT AND NONCREDIT VOCATIONAL ENROLLMENTS AND CONTACT HOURS
IN PROGRAMS/COURSES GENERATING ADA IN 1983-84

PART A ENROLLMENT:	Unduplicated headcount of vocational education act (VEA) enrollments as reported by the districts; may include noncredit as well as credit if course generated ADA. Students in enrolled in these courses are slated for follow-up.
PART B ENROLLMENT:	Unduplicated headcount, not reported in Part A (VEA), with the exception of some Consumer Homemaking enrollments that could be counted in Part A. Part B enrollments are not slated for follow up.
PART F ENROLLMENT:	Unduplicated headcount; students in apprenticeship programs and slated for follow up.
TOTAL ENROLLMENT:	Total of Part A, Part B and Part F (VEA reported enrollments)
ASCH:	Annual Student Contact Hour. This is the contact hours reported for fall, winter and spring quarters/terms or fall and spring semesters.
DAILY:	The number of credit hours per day for other than term length census courses based on average enrollment. This has been annualized in this report.
POSITIVE ATTENDANCE:	Computed from student and section contact hours reported in a positive attendance course data record. This has been annualized in this report.
TOTAL ANNUAL HOURS	ASCH, Daily, and Positive Attendance hours totaled.
HOURS/525	A rough estimate of the ADA generated, not considering the attendance factor of .911, which is currently recommended for deletion in figuring ADA.

Source documents for enrollments and hours were tapes and printouts supplied by the Chancellor's Office, California Community Colleges--VE enrollment tape was dated 6/13/85 and Course Classification Inventory File tape was dated 5/20/85.

Table H-1

SUMMARY OF CREDIT AND NONCREDIT VOCATIONAL ENROLLMENTS AND CONTACT HOURS, 83-84

TOPS	TITLE	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AN HR*	HOURS/525
01	AGRICULTURE	18545	4284	13	22842	2876955	33236	648937	3559128	6779
02	ARCHITECTURE	5298	1028	0	6326	1417061	2744	14572	1434377	2732
05	BUSINESS/MGMT	221027	107045	134	328206	32258965	597657	5994655	38851277	74002
06	COMMUNICATIONS	3443	2272	0	5715	2291203	7814	95483	2394500	4561
07	COMPUTER/DP (1)	76139	48047	318	124504	15005238	404310	1290558	16700106	31810
08	SPECIAL EDUC	2288	1258	0	3546	499191	9603	32007	540801	1030
09	TECHNICAL ED	122720	27062	12093	161875	25766516	719834	4603933	31090283	59220
10	ARTS-VOC ED	7839	4904	1	12744	2640259	15321	265220	2920800	5563
12	HEALTH OCCUP	41772	6934	113	48819	10857923	358321	2940019	14156263	26964
13	HOME EC/CHE**	30938	56084	82	87104	5229177	324051	2116695	7669923	14609
14	LEGAL ASST	2582	782	6	3370	410373	792	6504	417669	796
16	LIBRARY ASST	421	190	11	622	33025	0	2622	35647	68
19	GEOLOGY	140	45	0	185	14079	0	360	14439	28
21	PUBLIC SERV	71718	12547	648	84913	6851073	215727	5216469	12283269	23397
30	PERSONAL SERV	16756	1847	413	19016	3487878	255930	2007081	5750889	10954
49	VOC ED-ESL	1	0	0	1	144658	0	439	145097	276
	SUBTOTAL	621627	274329	13832	909788	109783574	2945340	25235554	137964468	262789
99	OTHER, VOC ED	35363	25836	2100	63299	1362407	308	278189	1640904	3126
	TOTAL	656990	300165	15932	973087	111145981	2945648	25513743	139605372	265915

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* See accompanying definition sheet.

(1) Data on apprenticeship on 6/13/85 tape differs from subsequent tapes but total all apprenticeship not significantly different.

Source: Chancellor's Office, California Community Colleges, Data Tapes for 6/13/85 VEA Enrollment;
Course Classification Inventory File, 5/20/85, compiled by Carvell Education Management Planning, Inc. 7/85.

Table H-2

SUMMARY OF VOCATIONAL AGRICULTURE: ENROLLMENTS AND CONTACT HOURS-1983-84

TOPS	AGRICULTURE	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AN HR*	HOURS/525
0100.0	AG NATURAL RES	125	10	11	146	105307	0	96531	201838	384
0101.0	AG NAT RES,GNL	1004	317	0	1321	276386	11364	24103	311853	594
0101.1	GENL AGRICULT	1259	277	0	1536	153061	3144	162454	318659	607
0102.0	AG PRODUCTION	151	211	0	362	92540	0	22078	114618	218
0102.1	LIVESTOCK MGMT	1481	460	0	1941	268420	1848	12951	283219	539
0102.4	PLANT SCIENCE	1045	496	0	1541	154866	414	15484	170764	325
0102.5	FARM MGMT	218	52	0	270	36056	0	453	36509	70
0109.0	ORN HORTICULT	2847	312	0	3159	496267	8115	48075	552457	1052
0109.1	ORN HORTIC MGMT	2657	615	0	3272	406800	4581	38032	449413	856
0109.2	PLANT CARE	0	0	0	0	1512	0	0	1512	3
0109.3	LANDSC HORT	0	0	0	0	0	0	4424	4424	8
0112.0	AG SERVICES	16	34	0	50	21573	120	1736	23429	45
0112.1	AGRI-BUSINESS	776	104	0	880	128318	0	5400	133718	255
0112.2	AGRI-INSPECT	0	0	0	0	1785	0	0	1785	3
0112.3	AG PEST CONT	4215	0	0	4215	1577	0	0	1577	3
0112.4	ANIM HEALTH TEC	337	75	0	412	147318	368	8406	156092	297
0112.5	ARTIF INSEMIN	8	0	0	8	1020	0	0	1020	2
0112.6	FARRIER	16	0	0	16	792	0	432	1224	2
0112.7	GROOM & TRNG	150	80	0	230	62488	0	6247	68735	131
0112.8	FOOD PROCESS	39	25	0	64	5654	35	35	5724	11
0114.0	FORESTRY	672	319	0	991	141369	0	66743	208112	396
0114.1	TIMBER MGMT	132	24	0	156	44360	0	1767	46127	88
0114.2	FOREST PROTECT	26	21	0	47	7560	0	0	7560	14
0114.3	FOREST ENGINEER	18	0	0	18	8064	0	0	8064	15
0115.0	NATURAL RES	99	268	0	367	49708	1020	17400	68128	130
0115.1	NAT RES MGMT	339	128	0	467	58049	0	8090	66139	126
0116.0	AG & FOR POWER	252	94	0	346	65997	594	12975	79566	152
0116.1	EQUIP & MACHIN	160	50	0	210	55212	385	22720	78317	149
0116.3	FARM MECHANICS	309	120	0	429	63939	0	57556	121495	231
0199.0	OTHER, AG & NAT	194	192	2	388	20957	1248	14845	37050	71
	AGRICULTURE VOC ED TOTAL	18545	4284	13	22842	2876955	33236	648937	3559128	6779

Note: See accompanying definition page for explanation of terms.

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Table H-2, continued

SUMMARY OF VOCATIONAL ARCHITECTURE AND ENVIRONMENTAL DESIGN : ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	ARCH/ENVIR DES	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AN HR*	HOURS/525
0201.0	ARCH/ENV DESIGN	1517	393	0	1910	634670	360	651	635681	1211
0201.1	ARCHITECT TECH	2319	324	0	2643	558050	1824	723	560597	1068
0201.3	ARCH MODEL BLDG	2	0	0	2	20412	0	236	20648	39
0203.0	INTERIOR DESIGN	1460	311	0	1771	203929	560	12962	217451	414
ARCH/ENVIRON DESIGN VOC ED TOTAL		5298	1028	0	6326	1417061	2744	14572	1434377	2732

Note: See accompanying definition page for explanation of terms.

SUMMARY OF VOCATIONAL BUSINESS AND MANAGEMENT: ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	BUSINESS/MGMT	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ACCH*	DAILY*	POS ATTN*	TOTAL AH HR*	HOURS/525
0500.0	BUSINESS & MGMT	192	5639	0	5831	93947	0	4857	98804	188
0501.0	BUS & COMM, GEN	30677	24866	13	55556	6573843	59094	650535	7283472	13873
0502.0	ACCOUNTING	50266	20235	40	70541	9310930	110358	299673	9720961	18516
0502.2	BOOKKEEPING	0	106	0	106	27993	3242	216	31451	60
0502.3	TAX STUDIES	104	0	0	104	15771	0	1302	17073	33
0504.0	BANKING & FIN	5277	970	0	6247	404505	12502	68611	485618	925
0504.1	BANKING MGMT	397	54	1	452	42954	5713	0	48667	93
0504.2	INVEST & SEC	174	22	0	196	30167	0	12374	42541	81
0504.3	CREDIT MGMT	132	2	0	134	14808	0	288	15096	29
0504.4	CASHIER/BK TEL	79	78	0	157	8424	0	16015	24439	47
0506.0	BUSINESS MGMT	25423	10928	4	36355	3284496	162491	149473	3596460	6850
0506.1	SMALL BUSINESS	1267	412	5	1684	240961	4407	15174	260542	496
0506.2	HOTEL/MOTEL MGM	616	74	0	690	283262	2980	709	286951	547
0506.3	MGMT DEV & SUPE	10323	2152	16	12491	961177	11087	115577	1087841	2072
0506.4	PERSONNEL	865	905	0	1770	205373	0	5730	211103	402
0509.0	MRKTG & DISTRI	7522	1736	1	9259	948778	8796	58194	1015768	1935
0509.1	ADVERTISING	580	157	0	737	128239	0	1759	129998	248
0509.2	PURCHASING	530	35	0	565	77631	0	0	77631	148
0509.3	APPAREL & ACCES	585	37	0	622	37110	1758	3651	42519	81
0509.4	FOOD, WHLS & RE	278	0	0	278	36415	0	5522	41937	80
0509.5	MERCHANDISING	5285	1471	0	6756	617538	768	39843	658149	1254
0509.6	DISPLAY	46	1	0	47	21347	0	0	21347	41
0509.7	MANAGEMENT	48	0	0	48	4869	0	0	4869	9
0510.0	TRANSP & NATL R	1725	119	0	1844	129259	1160	14842	145261	277
0510.1	INTRNL TRADE	21	0	0	21	4464	0	0	4464	9
0510.3	TRAFFIC MGMT	143	0	0	143	11772	0	0	11772	22
0510.5	AIRLINE GR CREW	42	1	0	43	0	0	0	0	0
0511.0	REAL ESTATE	9655	4599	4	14258	1199241	25852	114702	1339795	2552
0512.0	INSURANCE	660	163	3	826	43231	7301	8801	59333	113
0514.0	SECTY STUDIES	36763	17424	13	54200	4665591	96404	1924009	6686004	12735
0514.1	LEGAL	625	28	3	656	160247	607	22707	183561	350
0514.2	MEDICAL	1248	118	0	1366	178029	360	48198	226587	432
0514.3	COURT REPORTING	278	7	0	285	14135	0	100889	115024	219
0514.4	ADMINISTRATIVE	200	25	0	225	22579	0	3752	26331	50
0514.5	CLERICAL	11592	9188	20	20800	869531	39455	591380	1500366	2858
0514.6	TYPING	12140	4045	0	16185	922033	27243	1439849	2389125	4551
0514.7	WORD PROCESSING	3993	674	11	4678	440563	14014	235010	689587	1313
0516.0	LAB & IND REL	821	408	0	1229	102516	1360	1843	105719	201
0599.0	OTHER, BUSINESS	455	366	0	821	125236	705	39170	165111	314
BUSINESS AND MGMT VOC ED TOTAL		221027	107045	134	328206	32258965	597657	5994655	38851277	74002

Table H-2, continued

SUMMARY OF VOCATIONAL COMPUTER/DATA PROCESSING ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	COMPUTER/DP	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AN HR*	HOURS/525
0700.0	COMPUTER & INFO	1510	6415	222 *	8147	747	2856	92423	96026	183
0701.0	COMP & INFO,GNL	19072	16766	14	35852	4380304	292335	404453	5077092	9671
0701.1	MAINTEN TECHNIC	989	93	0	1082	247201	1120	5604	253925	484
0703.0	DATA PROCESSING	35950	16648	54	52652	5904668	64472	558410	6527550	12433
0704.0	COMPUTER PROG	13092	6480	26	19598	3211996	17625	201046	3430667	6535
0704.1	COMPUT PROG,BUS	4621	1531	0	6152	955937	25902	19168	1001007	1907
0704.2	COMPUT PROG,SCI	134	87	0	221	157018	0	0	157018	299
0705.0	SYSTEM ANALYST	495	27	2	524	99517	0	7191	106708	203
0705.1	SYST ANAL,BUS	276	0	0	276	47850	0	2263	50113	95
VOC ED COMPUTER & INFO SCI	TOTAL	76139	48047	318	124504	15005238	404310	1290558	16700106	31810

* In subseguent reports this figure changed.

Note: See accompanying definition page for explanation of terms.

Table H-2, continued

SUMMARY OF VOCATIONAL MANUFACTURING AND TECHNICAL : ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	MANUFACT/TECHN	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AN HR*	HOURS/525
0925.0	GENL ENG TECH	1206	503	0	1709	301124	594	296	302014	575
0925.1	CIVIL	321	35	4	360	42575	0	600	43175	82
0925.2	DESIGN/DRAFTING	638	15	1	654	184068	2700	1170	187938	358
0925.3	ELECTRICAL	170	5	0	175	33050	0	0	33050	63
0925.4	ELECTRONICS	3680	618	0	4298	719586	37492	60059	817137	1556
0925.5	MECHANICAL	146	45	0	191	39849	459	282	40590	77
0930.0	TECH & OC CURR	242	154	0	396	149663	0	55379	205042	391
0934.0	ELEC & ELEC TEC	21925	3084	26	25035	4872837	214569	741771	5829177	11103
0934.1	ELECTRON COMMUN	358	9	99	466	106259	1044	51812	159115	303
0934.2	IND ELECTRONICS	7056	1615	59	8730	1033120	0	33492	1066612	2032
0934.3	RADIO/TV	276	180	3	459	123272	6979	4359	134610	256
0934.4	ELECTRICAL-POWE	356	16	0	372	124738	0	0	124738	238
0934.6	COMPUTER ELECTR	1078	0	0	1078	437475	0	0	437475	833
0934.7	ELECTRON MICROS	101	19	0	120	26753	0	0	26753	51
0934.8	LASER TECHNOLOG	374	41	0	415	104965	0	0	104965	200
0934.9	ELECTRICAL MAIN	344	25	0	369	69746	726	0	70472	134
0935.0	ELECTROMECH TEC	10	4	0	14	17928	0	0	17928	34
0935.1	APPLIANCE REPAI	412	1028	0	1440	93974	0	9182	103156	196
0935.2	BUS MACH MAINT	100	30	0	130	12942	791	49363	63096	120
0935.3	VEND MACH MAINT	26	0	0	26	19200	0	0	19200	37
0935.4	IND ELECT MAINT	473	0	0	473	1224	0	0	1224	2
0935.5	ROBOTICS	0	6	0	6	4501	0	469	4970	9
0936.0	PRINT & LITHO,G	2037	365	0	2402	288856	2772	35134	326762	622
0936.1	TYPESET & COPY	26	0	0	26	47637	0	5814	53451	102
0936.2	CAMERA & STRIP	43	0	0	43	52326	0	0	52326	100
0936.4	PRESS OP-OFFSET	28	0	0	28	48070	0	16693	64763	123
0936.5	BIND & FIN WORK	27	1	0	28	23920	0	0	23920	46
0937.0	TOOL & MACH DES	360	1	0	361	109548	1566	1568	112682	215
0943.1	INSTRUMENT MAIN	26	0	0	26	12331	0	0	12331	23
0943.2	BIO-MED INSTRUM	21	0	0	21	5184	0	0	5184	10
0943.3	VACUUM TECHNOL	61	0	0	61	5832	0	0	5832	11
0945.0	MECH TECHN,GNL	868	238	1	1107	58206	1440	33273	92919	177
0945.1	ENVIR CONT TECH	1731	483	0	2214	425392	2994	13525	441911	842
0945.2	FLD PWR/HYDRAUL	54	18	13	85	6568	0	29398	35966	69

Table H-2, continued

Summary of Vocational Manufacturing and Technical: Enrollments and Contact Hours, 1983-84

0945.3 STAT ENGINEER	252	0	272	524	16200	0	26016	42216	**80**
0945.4 REFRIG SYSTEMS	1465	38	13	1516	352697	0	39967	392664	**748**
0945.5 EMERGY CONV SYS	158	99	0	257	21549	0	1883	23432	**45**
0947.0 DIESEL TECH	560	40	1	601	171586	10392	210	182188	**347**
0947.1 DIESEL MECHANIC	721	99	19	839	165318	0	292	165610	**315**
0947.2 HEAVY EQUIP MAI	161	42	29	232	51564	378	911	52853	**101**
0947.3 HEAVY EQUIP OP	6	0	663	669	13069	0	28830	41899	**80**
0947.4 RAILRD EQUIP MA	15	27	0	42	6408	0	0	6408	**12**
0948.0 AUTOMOT TECH	5324	542	46	5912	1112491	27824	270450	1410765	**2687**
0948.1 AUTO MECHANICS	10827	1341	411	12579	2247732	42173	662978	2952883	**5625**
0948.2 BODY-FENDER	3082	572	68	3722	790733	2894	190750	984377	**1875**
0948.3 MOTORCY,OUTBD,S	533	95	0	628	124967	7280	1476	133723	**255**
0950.0 AERON & AVIA TE	2050	546	0	2596	835355	16771	21486	873612	**1664**
0950.1 AIRFRAME	313	38	0	351	177720	31544	38732	247996	**472**
0950.2 POWERPLANT	568	2	0	570	147342	135244	29552	312138	**595**
0950.3 COMMERC PILOT	2492	758	0	3250	332890	0	15814	348704	**664**
0950.4 AIRCRAFT ELECTR	98	9	0	107	2520	31364	7029	40913	**78**
0952.0 CONST CRAFTS TE	1431	1110	309	2850	278634	2126	27145	307905	**586**
0952.1 CARPENTRY	1482	144	4299	5925	329760	80	330132	659972	**1257**
0952.2 ELECTRICAL	1271	294	1308	2873	294392	0	156948	451340	**860**
0952.3 PLUMBING	737	56	1056	1849	78963	0	215759	294722	**561**
0952.4 GLAZING	0	0	205	205	0	0	22950	22950	**44**
0952.5 MILL & CABINET	849	224	378	1451	255078	1344	35995	292417	**557**
0952.6 MASONRY & PLAST	286	69	281	636	39546	0	14213	53759	**102**
0952.7 PAINT & DECOR	32	5	151	188	8508	0	10030	18538	**35**

0953.0 DRAFTING TECH	8833	2635	8	11476	2148328	42604	102938	2293870	4369
0953.1 ARCHITECTURAL	1072	166	0	1238	393743	0	2718	396461	755
0953.2 CIVIL & MAPPING	30	0	0	30	12583	0	1350	13933	27
0953.3 ELECTR & ELECTR	237	33	0	270	46210	0	0	46210	88
0953.4 MECHANICAL	1823	337	0	2160	395545	2160	0	397705	758
0953.5 INDUSTRIAL DESI	412	106	0	518	29440	0	0	29440	56
0953.6 TECHNIC ILLUSTR	386	20	0	406	130499	0	1292	131791	251
0954.0 CHEM TECH,PLAST	53	5	0	58	24023	0	2592	26615	51
0954.2 PLASTICS	174	14	0	188	38302	7425	858	46585	89
0954.3 PETROLEUM	587	12	0	599	23667	0	3016	26683	51
0955.0 LAB SCI TECHNOL	50	888	0	938	2790	0	676	3466	7
0956.0 IND TECHNOL,GNL	4877	1502	535	6914	658338	6375	191845	856558	1632
0956.1 METALLUR TECHN	480	13	0	493	34727	0	2106	36833	70
0956.2 METALWORKING	1114	278	931	2323	230845	0	152470	383315	730
0956.3 MACH TOOL/M SHO	5309	979	608	6896	1308680	6552	276520	1591752	3032
0956.4 SHEET METAL	176	15	77	268	35799	0	35157	70956	135
0956.5 WELDING & CUTTI	7242	1617	146	9005	1586534	32739	422541	2041814	3889
0956.6 WOODWORKING	211	94	0	305	67914	3684	4567	76165	145
0956.7 OPTICS	16	0	0	16	3332	0	0	3332	6
0956.8 IND QUAL CONTRO	1966	223	0	2189	228561	19471	10731	258763	493
0956.9 MUSIC INSTR REP	55	96	0	151	2952	0	0	2952	6
0957.0 CIV & CONS MG T	923	143	9	1075	178802	1008	8294	188104	358
0957.1 CONSTRUCT MGMT	941	8	0	949	96254	1776	342	98372	187
0957.2 CONSTRUC INSPEC	1215	89	0	1304	152275	0	4957	157232	299
0957.3 SURVEYING	169	174	0	343	43242	961	4037	48240	92
0958.0 SANITAT & PUB H	350	2	3	355	16395	0	1261	17656	34
0958.1 WATER & WASTE W	1391	146	1	1538	109214	5600	18219	133033	253
0958.3 IND SAFETY TECH	179	11	0	190	15394	0	0	15394	29
0958.4 SOLID WASTE MGM	0	10	0	10	1860	0	0	1860	4
0959.0 MARINE TECHN	213	154	24	391	132681	3798	16101	152580	291
0999.0 OTHER, TECH	2722	2604	36	5362	129882	2141	24528	156551	298
0999.1 SEMICOND PROC T	227	0	0	227	29964	0	21630	51594	98
MANUFACT AND TECH VOC ED TOTAL	122720	27062	12093	161875	25766516	719834	4603933	31090283	59220

Note: See accompanying definition page for explanation of terms.

Table H-2, continued

SUMMARY OF VOCATIONAL ARTS : ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	VOC ED ARTS	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AN HR*	HOURS/525
1004.3	COMMERC MUSIC	634	806	0	1440	171600	2970	4218	178788	341
1007.1	TECHN THEATER	302	8	0	310	48567	504	163120	212191	404
1009.2	COMMERC ART	2045	454	1	2500	445126	3393	10862	459381	875
1010.0	CINEMATOGRAPHY	845	814	0	1659	539394	0	10842	550236	1048
1011.1	PHOTO LAB TECHN	256	148	0	404	94336	0	756	95092	181
1011.2	MICROGRAPHICS	23	0	0	23	741	0	0	741	1
1011.3	BIOL PHOTO TECH	23	13	0	36	4464	0	573	5037	10
1011.4	COMMERCIAL PHOT	1391	1312	0	2703	642402	6786	35081	684269	1303
1030.0	GRAPHIC ARTS	1843	1182	0	3025	519756	1668	33132	554556	1056
1030.1	TECHN ILLUSTR	477	167	0	644	173873	0	6636	180509	344
VOCATIONAL ED ARTS TOTAL		7839	4904	1	12744	2640259	15321	265220	2920800	5563

Note: See accompanying definition page for explanation of terms.

Table H-2, continued

SUMMARY OF VOCATIONAL HEALTH : ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	HEALTH	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AH HR*	HOURS/525
1200.0	HEALTH OCCUP	39	435	0	474	2916	0	1576	4492	9
1202.0	HOS & H CARE AD	220	0	0	220	1296	0	0	1296	2
1202.2	HOSPI STAFF SERV	237	24	0	261	0	0	46876	46876	89
1203.0	NURSING	4345	661	0	5006	680752	10650	151787	843189	1606
1203.1	NURSING, RN	10509	1271	67	11847	3089996	165262	1332533	4587791	8739
1203.2	NURSING, LVN	5144	819	26	5989	1553356	39764	406615	1999735	3809
1203.3	NURSES AIDE	1048	131	0	1179	90324	8575	90650	189549	361
1203.5	HOSPI WARD CL	48	0	0	48	7596	0	9535	17131	33
1203.6	HOSPI SERV TECH	73	0	0	73	0	0	0	0	0
1203.7	MED ASST & OFF	3581	243	3	3827	633157	5588	43569	682314	1300
1204.0	DENTAL PROF, GN	28	0	0	28	87619	0	13763	101382	193
1204.1	DENTAL ASSIST	1721	56	0	1777	685010	16223	60776	762009	1451
1204.2	DNTL HYGIENIST	353	9	0	362	320845	0	920	321765	613
1204.3	DENTAL TECHN	382	74	1	457	222579	925	28922	252426	481
1205.0	MED LAB TECHNOL	5	0	0	5	0	0	7176	7176	14
1205.1	MED LAB TEC-BIO	22	0	0	22	7914	0	0	7914	15
1205.2	MED EQUIP TECHN	1	0	0	1	384	0	1560	1944	4
1206.1	PHYSICIANS ASST	1	0	0	1	0	0	0	0	0
1206.3	PHY ASST P CARE	70	0	0	70	80760	0	0	80760	154
1207.0	MED SPECIALT,GN	154	157	0	311	16868	0	17953	34821	66
1207.1	ELEC-DIAG TECHN	115	0	0	115	29835	914	15607	46356	88
1207.3	RESPIR THERAPY	1190	214	0	1404	672998	11960	52433	737391	1405
1207.4	CARDIO-PUL TECH	112	0	0	112	71232	0	0	71232	136
1207.7	SURG TECHN/OR N	17	0	0	17	13020	0	0	13020	25
1208.0	OCCUP THERAPY T	77	8	0	85	15140	0	15174	30314	58
1209.0	OPTOMETRY,GNL	1	0	0	1	0	0	0	0	0
1209.1	OPTICAL TECHN	161	3	0	164	53665	0	1542	55207	105
1211.0	PHARMACY,GNL	113	25	0	138	9921	0	2445	12366	24

1211.1 PHARMACY TECHN	221	0	0	221	41698	1062	0	42760	81
1212.0 PHYSICAL THERAP	103	6	0	109	31252	0	8521	39773	76
1212.2 PHYS THER ASST	137	1	0	138	68610	0	7536	76146	145
1215.0 MED REC LIBRARI	133	8	0	141	73534	0	0	73534	140
1215.1 MED RECORD TECH	373	1	0	374	44698	0	251	44949	86
1220.0 SPEECH PATH/AUD	0	255	0	255	7398	0	3313	10711	20
1225.0 RADIOLOG TECHY	1130	156	0	1286	765167	1963	47466	814596	1552
1225.1 NUCLEAR THER TE	30	0	0	30	62732	0	672	63404	121
1225.2 X-RAY TECHN	269	11	0	280	107634	7988	14426	130048	248
1225.3 SONOGRAPHY TECH	77	0	0	77	38120	0	4875	42995	82
1239.0 PSYCH TECHNOLOG	733	34	15	782	251856	30994	136000	418850	798
1239.2 MENTAL H AIDE	93	0	0	93	52452	1008	0	53460	102
1246.0 RECREAT THERAPY	30	0	0	30	0	1008	1580	2588	5
1250.0 EMERG MED SERV	3334	460	1	3795	257710	9567	65927	333204	635
1250.1 PARAMED TECHN	389	21	0	410	15876	14913	46284	77073	147
1250.2 EMT	2599	273	0	2872	206659	22550	275024	504233	960
1299.0 HEALTH, OTHER	2354	1578	0	3932	485344	7407	26732	519483	989
HEALTH TOTAL	41772	6934	113	48819	10857923	358321	2940019	14156263	26964

Note: See accompanying definition page for explanation of terms.

Table H-2, continued

SUMMARY OF CONSUMER HOMEMAKING AND HOME ECONOMICS :   ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	CHE/HOME ECON	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AN HR*	HOURS/525
1300.0	CONSUM ED/HOME	1	318	0	319	29761	0	7164	36925	70
1302.0	HOME DEC & EQUI	390	233	0	623	94854	24	37980	132858	253
1302.1	OCC HOME FURN	567	627	0	1194	185070	3792	1692	190554	363
1302.2	FLORISTRY	331	205	0	536	58559	0	6852	65411	125
1303.0	CLOTHING & TEX	3934	1040	0	4974	494553	8169	489486	992208	1890
1303.1	CLOTHING DESIGN	2083	806	3	2892	336532	208903	33821	579256	1103
1303.2	CLOTH MERCHAN	650	171	0	821	88420	2700	5481	96601	184
1303.3	UPHOLSTERY	408	17	71	496	66876	0	35524	102400	195
1303.4	INDUS SEWING	238	26	0	264	37619	0	92966	130585	249
1304.0	CONS & HOMEMKG	160	10800	0	10960	298085	15449	87201	400735	763
1304.1	CONS. & HOME EC	246	5027	0	5273	50638	0	61689	112327	214
1304.2	CHILD DEV. CARE	0	761	0	761	52176	0	83272	135448	258
1304.3	CLOTHING/TEXTIL	0	1978	0	1978	14781	0	33462	48243	92
1304.4	CONSUMER EDUCAT	0	5352	0	5352	1710	0	101040	102750	196
1304.5	FAMILY/IND HEAL	0	1773	0	1773	0	0	46423	46423	88
1304.6	FAM LIV & PAREN	0	7203	0	7203	38000	703	44451	83154	158
1304.7	FOOD & NUTRITIO	0	8107	0	8107	40074	0	16749	56823	108
1304.8	HOME MANAGEMENT	0	231	0	231	12021	0	1152	13173	25
1304.9	HOUSING, HOME F	0	63	0	63	9948	0	22741	32689	62
1305.0	FAM REL & CHILD	5536	3444	0	8980	1110438	47929	197277	1355644	2582
1305.1	CHILD DEV/LAB	12539	3311	7	15857	1229368	16685	324930	1570983	2992
1305.2	EXCEPTION CHILD	12	20	0	32	14079	522	509	15110	29
1305.3	GERONTOLOGY	0	151	0	151	19764	468	200919	221151	421
1306.0	FOODS & NUTRITI	2170	1750	0	3920	696394	2124	141122	839640	1599
1306.1	FOOD MGMT,PROD	498	62	0	560	95772	4532	23586	123890	236
1306.2	DIETETICS	205	375	0	580	121100	4684	7750	133534	254
1306.3	QUANTITY FOOD S	174	14	0	188	16258	612	387	17257	33
1307.0	INSTITUT MGMT	75	2	1	78	7333	6755	0	14088	27
1399.0	OTHER, HOME ECO	721	2217	0	2938	8994	0	11069	20063	38
CONSUMER ED/HOME ECON TOTAL		**30938**	**56084**	**82**	**87104**	**5229177**	**324051**	**2116695**	**7669923**	14609

Note: See accompanying definition page for explanation of terms.

Table H-2, continued

SUMMARY VOCATIONAL PUBLIC SERVICE :   ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	PUBLIC SERVICE	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AN HR*	HOURS/525
2101.3	FIRST AID/SAFET	0	13	0	13	38464	0	5719	44183	84
2101.5	ALCOHOL & SUBST	76	0	0	76	63165	0	0	63165	120
2102.0	PUBLIC ADMIN	164	1	0	165	20521	0	3418	23939	46
2102.4	PUBLIC WKS & UT	0	0	0	0	0	0	11919	11919	23
2102.5	STREET MAINT	105	0	77	182	5400	0	0	5400	10
2102.6	SEARCH & RESCUE	773	0	0	773	36	0	17672	17708	34
2103.0	PARKS & RECREA	293	28	0	321	87925	300	15844	104069	198
2104.0	SOC WORK & HELP	1772	437	3	2212	168758	1430	54737	224925	428
2104.1	SOC WORK AIDE	102	0	0	102	5862	0	0	5862	11
2104.2	CLINIC SOC WK A	65	0	0	65	15588	0	0	15588	30
2105.0	ADMIN OF JUSTIC	38660	7648	460	46768	3716274	120756	2425991	6263021	11930
2105.1	CORRECTIONS	743	266	0	1009	92189	720	946	93855	179
2105.2	PROBATION & PAT	700	0	0	700	0	0	0	0	0
2105.3	INDUS SECURITY	466	0	0	466	8601	1267	7266	17134	33
2105.5	POLICE ACADEMY	1833	0	0	1833	96899	4524	829826	931249	1774
2105.6	INVESTIGATIONS	42	56	0	98	6925	1776	4568	13269	25
2107.0	HUMAN SERVICES	1254	210	0	1464	141269	0	157300	298569	569
2107.1	EARLY CHILD ED	5356	1145	0	6501	627259	3472	35266	665997	1269
2107.2	CHILD DEVELOP	2583	503	0	3086	426988	2926	56978	486892	927
2107.3	PARENT EDUC	27	50	0	77	27330	0	168708	196038	373
2107.4	GERONTOL AIDE	174	203	0	377	42450	0	17902	60352	115
2107.5	EDUC AIDE,CLSRM	1564	212	0	1776	150126	5756	72586	228468	435
2107.6	RECREAT ASST	441	93	0	534	129950	0	5690	135640	258
2107.7	COUNSELOR AIDE	2	56	0	58	12680	12154	515204	540038	1029
2133.0	FIRE CONTROL TE	8078	656	5	8739	605085	52957	266756	924798	1762
2133.1	FIRE & SAFETY T	5781	930	54	6765	341020	7689	285063	633772	1207
2133.5	FIRE ACADEMY	664	40	49	753	20309	0	257110	277419	528
	PUBLIC SERVICES TOTAL	71718	12547	648	84913	6851073	215727	5216469	12283269	23397

Note: See accompanying definition page for explanation of terms.

Table H-2, continued

SUMMARY VOCATIONAL PERSONAL SERVICE : ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	PERSONAL SERV	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AM HR*	HOURS/525
3000.0	COMMERC SERVICE	0	516	0	516	10764	0	0	10764	21
3001.0	COMMER SERV, GN	162	10	0	172	8532	0	6894	15426	29
3002.0	FOOD SERV TECHN	2918	267	82	3267	432937	9348	42571	484856	924
3002.1	CHEF TRAINING	320	0	3	323	102194	0	54	102248	195
3002.2	INSTITUT COOK	139	17	273	429	212294	0	22831	235125	448
3002.3	WAITER/WAITRESS	8	0	0	8	0	0	2115	2115	4
3002.4	CATERING	73	14	1	88	25160	0	0	25160	48
3002.5	RESTAUR/FOOD MG	135	0	0	135	32997	0	3653	36650	70
3003.0	LEATHERWORKING	153	0	0	153	21024	0	0	21024	40
3004.0	INSTIT HOUSEKEE	119	9	0	128	15174	1609	5005	21788	42
3005.0	CUSTOD SERVICES	526	0	0	526	0	0	63713	63713	121
3006.0	BARBERING	120	0	24	144	0	0	72455	72455	138
3007.0	COSMETOLOGY	5925	256	24	6205	1816306	185213	1717245	3718764	7083
3008.0	DRYCLEANING	219	0	0	219	36756	0	24171	60927	116
3009.0	TRANSPORTATION	751	30	0	781	83445	11531	1386	96362	184
3009.1	FLIGHT ATTENDAN	560	110	0	670	106366	0	8038	114404	218
3009.3	TRAVEL AG OPER	3470	363	6	3839	454509	48229	20341	523079	996
3009.4	RECREAT & TOURI	1110	255	0	1365	114156	0	14863	129019	246
3099.0	OTHER, SERVICES	48	0	0	48	15264	0	1746	17010	32
	PERSONAL SERVICES TOTAL	16756	1847	413	19016	3487878	255930	2007081	5750889	10954

Note: See accompanying definition page for explanation of terms.

Table H-2, continued

SUMMARY OF VOCATIONAL COMMUNICATIONS AND MISCELLANEOUS : ENROLLMENTS AND CONTACT HOURS, 1983-84

TOPS	COMMUNIC/MISC	PART A,ENRL	PART B,ENRL	PART F,ENRL	TOTAL,ENRL	VOC ASCH*	DAILY*	POS ATTN*	TOTAL AN HR*	HOURS/525
0601.1	PUBLIC RELATION	99	170	0	269	54008	0	468	54476	104
0602.0	JOURNALISM	1217	756	0	1973	821354	2520	55925	879799	1676
0603.0	RADIO/TV	2034	1346	0	3380	1186620	2159	35142	1223921	2331
0603.1	TV TECHNICIAN	0	0	0	0	206422	3135	2088	211645	403
0603.2	AV TECHNICIAN	3	0	0	3	20430	0	1860	22290	42
0604.0	ADVERTISING	90	0	0	90	2369	0	0	2369	5
VOC ED	COMMUNICATIONS TOTAL	3443	2272	0	5715	2291203	7814	95483	2394500	4561
0808.2	SPEC ED/SER AID	2288	1258	0	3546	499191	9603	32007	540801	1030
1401.1	LEGAL ASSIST	2582	782	6	3370	410373	792	6504	417669	796
1601.1	LIBRARY TECH/AI	421	190	11	622	33025	0	2622	35647	68
1914.1	GEOLOGIC TECHN	140	45	0	185	14079	0	360	14439	28
4930.8	VOCATIONAL ESL	1	0	0	1	144658	0	439	145097	276

Note: See accompanying definition page for explanation of terms.

Table H-3

12 LARGEST VOCATIONAL PROGRAMS IN TERMS OF CONTACT HOURS, 1983-84

TOPS	TITLE	TOTAL ENROLL	CONTACT HRS	HOURS/525	COLL W/ HRS	PROG APPRVD	PROG APRVD VE	'# EXCEED APRV	EXC VE APRV
0501.0	BUSIN &COMM,GNL	53556	7283472	13873	98	82	65	16	33
0502.0	ACCOUNTING	70541	9720961	18516	103	94	88	9	15
0506.0	BUSINESS MGMT	36355	3596460	6850	98	84	73	14	25
0514.0	SECTY STUDIES	54200	6686004	12735	103	104	104	-1	-1
0701.0	COMPUT & INFO S	35852	5077092	9671	64	56	42	8	22
0703.0	DATA PROCESSING	52652	6527550	12433	62	60	58	2	4
0704.0	COMPUTER PROG	19598	3430667	6535	49	23	16	26	33
0934.0	ELEC & ELEC TEC	25035	5829177	11103	67	40	36	27	31
0948.1	AUTO MECHANIC	12579	2952883	5625	62	54	59	8	3
1203.1	NURSING, RN	11847	4587791	8739	64	38	35	26	29
2105.0	ADMIN OF JUSTIC	46768	6263021	11930	89	91	87	-2	2
3007.0	COSMETOLOGY	6205	3718764	7083	33	34	34	-1	-1
	SUBTOTAL	427188	65673842	125093	892	760	697	132	195
	TOTAL ALL PROG	909788	137964468	262789	NA	7022	NA	17.37% *	27.98% **
	PERCENT ST/T	46.95%	47.60%	47.60%		10.82%			

SOURCE: DATA TAPES PROVIDED BY COCCC AND COMPILED BY CARVELL EDUCATION MANAGEMENT PLANNING, INC., AUGUST 1985

* Exceed Approval by State; ** Exceed Specific Vocational Program Approval--as per Master Plan and Inventory of Programs, 1984, Chancellor's Office, California Community Colleges.

SUMMARY OF FACULTY CHARACTERISTICS RELATED TO VOCATIONAL EDUCATION WSCH

The 106 California community colleges employ about 16,000 full-time and 23,000 part-time faculty. Part-time faculty teach about 30 percent of all instructional hours, and it is speculated that they are relied upon most heavily in occupational/vocational courses (70); however, there is no state level documentation to show this in concrete terms.

Faculty Staffing Information From State Reports

Information about the characteristics of vocational education faculty were sought from data available from state reports and from federal reporting documents. The Chancellor's Office, California Community Colleges (COCCC) produces an annual report on staffing and salaries (47); however for the past three years, data have not been reported separately on vocational instructor staffing patterns. The latest available annual report on total staffing patterns was for the 1983-84 program and does not treat vocational staff separately from other faculty, but it does separate part-time faculty from regular contract faculty. Available information on faculty characteristics is not currently analyzed by Taxonomy of Programs (TOPs). Even though the California Postsecondary Education Commission (CPEC) does a staffing report on higher education for the legislature, this report does not provide information by type of instructor or by district.

In the past reports have been done to show the balance of vocational staffing patterns related to sex equity issues. These report generally relied on data furnished on the vocational education (VEA) reporting forms. The Community College Occupational Programs Evaluation System (COPES) has questions related to staffing needs, but these reports are not currently being administered. As a result there are little data to show the characteristics or needs of vocational faculty; however, the information from the COPES report for 1981-82 indicated that inservice education opportunities were among the top priorities for program improvement (117).

Data were available from the Course Activity Report for Fall 1982 which indicate weekly student contact hours (WSCH) generated in vocational TOPs by district (71). The study team analyzed this course activity data for all districts in the state and information on faculty staffing patterns and characteristics to determine if there were discernible variations in faculty patterns between districts generating greater than statewide average WSCH in vocational programs and the state as a whole. The findings presented here are from the analysis of data from two sources available in the COCCC--the course activity report noted above and the Annual Report on Staffing & Salaries, 1983-84, Analytical Studies Unit, May 1984 (47).

In the Fall of 1982 about 35 percent of all WSCH generated in the state were directly related to vocational TOPs. In order to accommodate the variations in the percent of WSCH generated in vocational TOPs, 40 percent was used to identify districts with higher levels of WSCH in vocationally related TOPs. Thirty-three of 70 districts (47%) generated 40 percent or more of their total annual WSCH in vocational programs. Selected faculty characteristics in these higher vocational WSCH districts were compared with those of the total state. The comparison appears on the chart in Table I-1. Highlights of the chart are noted below.

- 58% of all faculty (39,082) in California community colleges were part-time.

- Ten districts (14%) employed less than 50% of their faculty part-time.

- 48% of all community college faculty in the state worked in the 33 districts with greater than state average WSCH in vocational programs.

- 25 districts (36%) had at least 40% of their full-time faculty who were over 50 years old; none of the districts had 40% of their part-time faculty over 50 years old, thus it appears that on the average part-time faculty are younger than full-time faculty.

- 35 districts (50%) generated more than 100,000 WSCH in Fall 1982.

- 46% of the districts hired 10% or more of their full-time faculty from ethnic minorities, 44% of the districts employed 10% or more of their part-time faculty from ethnic minorities.

- About 6% and 10% of the districts hired more than 20 percent of their faculty members (full or part-time) from ethnic minorities.

- In 30 districts (43%) women constituted at least 35 percent of the full-time faculty (none had over 50 percent female faculty), but in 51 districts (73%) women comprised 35 or more percent of the part-time faculty (in 8 districts over 50 % of the part-time faculty were part-time).

As can be seen there is little discernible difference between those districts with above average amounts of WSCH generated in vocational TOPs and the State's districts as a whole. A cursory review of the faculty statistics indicates an under representation of women and ethnic minorities among full-time faculty, but this appears to be an across the board problem and not one related specifically to vocational education. Also little is known of internal differences of the districts' staffing patterns. The current information reported in these two sources do not reveal that there is higher use of part-time faculty in vocational than in other types of programs. More specific data needs to be collected from districts in order to learn about vocational staffing patterns. There may be more differences between large and small; rural, suburban and urban districts than between the types of instructional programs offered. The need for further study of faculty profiles and utilization is apparent.

Table I-1

COMPARISON OF FACULTY PROFILES IN DISTRICTS WITH ABOVE STATE AVERAGE WSCH IN VOCATIONAL PROGRAMS AND STATE TOTALS

Faculty Profile Data	STATE TOTALS (Districts N=70)		ABOVE STATE AVG. (Districts N=33)	
	Number	Percent	Number	Percent
Number of:				
. Full-time Faculty (FTF)	16,235	42%	7,908	42%
. Part-time Faculty (PTF)	22,847	58%	11,038	58%
Combined Faculty	39,082	100%	18,946	100%
Districts with:				
. 40% FTF over 50 years old	25	36%	12	36%
. Over 60% of faculty PT	35	50%	17	52%
. Less 50% of faculty PT	10	14%	6	18%
. Fall 1982 WSCH over 100,000	35	50%	17	52%
. Over 10% of FTF Ethnic Minority	32	46%	17	52%
. Over 20% of FTF Ethnic Minority	4	6%	2	6%
. Over 10% of PTF Ethnic Minority	31	44%	17	52%
. Over 20% of PTF Ethnic Minority	7	10%	3	9%
. Over 35% of FTF Female	30	43%	15	45%
. Over 35% of PTF Female	51	73%	24	73%

Vocational Administrator Perceptions of Faculty Utilization

In an effort to identify faculty utilization and needs in vocational programs the study team administered a survey instrument at the California Community College Administrators of Occupational Education (CCCAOE) Conference in April 1985. The purpose of this survey was to identify perceptions of vocational administrators about various issues related to changes, past and future, in vocational education. Sixty-three (63) administrators responded; this represented about 75% of those who took an instrument to complete. An additional 9 responses were received from deans of student services. Although these deans were not asked to respond to all items, on those items to which they did respond there was little difference in perception between them and the administrators of vocational programs. Six statements in the survey were related to staffing patterns. The following chart (Table I-2) summarizes the feedback from the 63 vocational administrators.

Table I-2

SUMMARY OF PERCEPTIONS REGARDING USE OF INSTRUCTORS IN VOCATIONAL PROGRAMS AND RELATED ISSUES

	Direction of Change 1980-85				Direction of Change 1985-90			
Topic Covered	+	=	-	?/NA*	+	=	-	?/NA
Use of industry personnel as instructors	35%	55%	3%	7%**	67%	30%	--%	2%
Use of part-time instructors to offset costs	47	38	12	4	45	45	--	8
Use of part-time instructors to provide currency with industry methods	38	56	5	1	69	27	1	3
Replacement of retiring/leaving vocational staff	16	39	45	--	30	53	14	3
Need for staff development	50	41	9	--	88	12	--	--
Staff development through industry internships	20	42	14	24	72	20	--	8

* +: Increase by 5% or more; =: No change+ -: Decrease by 5% or more
?/NA: Don't Know/Not Applicable combined.

** Percent responding: n = 63

Source: Information summarized from tables in Appendix G,

In most instances, more administrators were likely to perceive the future as increasing even though a small percent had seen this to be true in the past 5 years. For example, 38% of the respondents said "Use of part-time instructors to provide currency..." had increased during the past 5 years and 69% perceive it will increase during the next 5 years. There tends to be an optimism on the part of administrators that the lack of replacement of retiring/leaving staff would stop in that 45% said replacement had decreased during the past 5 years, but only 14% believed it would decrease further during the next 5 years.

The need for staff development was perceived to be great. Not only did 50% indicate the need had increased during the past 5 years, but 88% believe the need would increase during the next 5 years. However, little is known about the type and amount of inservice education that is provided to keep faculty current in their disciplines and apprised of teaching methodologies that may better suit changing student characteristics.

If the perceptions of administrators who work daily with vocational education faculty are accurate about future trends, there will be an increase in the use of part-time faculty to provide currency with industry as well as to offset costs; more staff development will occur through industry internships; and the need for staff development will continue to be a critical need.

There needs to be more definitive information on the characteristics of vocational faculty. Are the older vocational faculty members concentrated in particular disciplines or equally dispersed throughout the disciplines within the districts? Are part-time faculty provided inservice related to the philosophy or mission of the district/college? Are efforts made to recruit staff that more closely resemble the ethnic characteristics of the students they teach? If female students outnumber male students, are efforts made to balance the ratio of male to female faculty, full-time and part-time? What plans are made to replace faculty that retire; are new faculty hired into the same disciplines or are programs and community needs and industry demands assessed to determine the best staffing patterns? These questions need to be addressed in further research efforts sponsored by the COCCC.

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